

# Unemployment Compensation: Studies and Research

Volume 1



National Commission  
on Unemployment Compensation  
July 1980

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# Preface

These volumes are a compilation of research studies by experts in their fields. They are being made available in order to provide policymakers and administrators with some recent thinking on policy issues and to stimulate the research community's interest in unemployment insurance.

No attempt was made to survey all the important topics in unemployment insurance because time was limited and data were not always available. Some of these reports break new ground, while others revisit old issues. The reports vary greatly in terms of empirical methods and the amount of quantitative analysis used.

Most of the reports were prepared by authors under contract with the National Commission on Unemployment Compensation or by Commission staff members. Some were prepared under other auspices and made available to the Commission. The opinions expressed and conclusions drawn are those of the individual authors and do not necessarily represent the views of the Commission.

The reports are grouped into 13 sections according to the major issue addressed. Some overlap occurs since a single report may include discussion on several topics. In some cases, reports are not presented in their entirety; when this is the case, it is indicated in the author's note on the first page of each report. The complete versions of such reports, plus additional reports prepared for the Commission but not published in these volumes, are available from the microfiche collection of Government Depository Libraries.

A Research Advisory Committee was established to assist in deciding which of the many proposals received by the Commission should be funded. The members of that Committee were Joseph Becker, S.J., Research Professor, Jesuit Center for Social Studies, Georgetown University, Washington, D.C.; Saul Blaustein, Senior Economist, W. E. Upjohn Institute for Employment Research, Kalamazoo, Michigan; Daniel Hamermesh, Professor of Economics, Michigan State University, East Lansing, Michigan; Joseph Hight, Senior Labor Economist, Office of the Assistant Secretary for Policy, Evaluation and Research, U.S. Department of Labor, Washington, D.C.; Thomas Joyce, Research Analyst, Office of Policy, Evaluation and Research, Employment and Training Administration, U.S. Department of Labor, Washington, D.C.; Arnold Katz, Assistant Professor of Economics, University of Pittsburgh, Pittsburgh, Pennsylvania; and Stephen Wandner, Deputy Director, Office of Research, Legislation, and Program Policies, Unemployment Insurance Service, Employment and Training Administration, U.S. Department of Labor, Washington, D.C. In addition to evaluating proposals, these individuals gave guidance on areas for research and on the organization of these volumes. Their knowledge has been invaluable, and their willingness to assist is greatly appreciated. They are not responsible for any shortcomings.

The scope of this collection is attributable to the vision of the Commission Chairman, Wilbur J. Cohen. James M. Rosbrow, Executive Director, gave day-to-day encouragement. Mamoru Ishikawa got the project launched, and Robert Crosslin helped in midstream. James Van Erden gave continuing assistance. These reports would never have been published without the willingness and expertise of Roger Webb, Lynne Neorr, and Judy Wall, all of whom oversaw the details of publication.

RAYMOND MUNTS  
Director of Research and Evaluation



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# Labor Force Attachment, Disqualification, and Eligibility



# Previous Work Requirements and the Duration of Benefits

Raymond C. Munts

**W**ide variation exists in the Federal-State unemployment insurance (UI) system regarding who is qualified for benefits. For example, in California highly paid movie actors working only for a few days can qualify for benefits while in New York low-paid garment workers have to work at least 20 weeks.

This difference occurs because of the ways these States define who is "substantially attached to the labor market." One of the tests of substantial attachment is previous earnings or work in the base year preceding the claim. States differ widely in the application of this requirement.

A closely related issue is how the previous year's work is related to the number of weeks of benefits that can be claimed. Here too the practice varies widely.

In the spring of 1980, workers earning \$200 a week with only 20 weeks of work could qualify for 10 weeks of benefits in Florida and 30 weeks in Pennsylvania. If they were laid off for 6 months, they would collect about twice as much in Pennsylvania as in Florida. This is largely because Pennsylvania offers the same number of weeks to all claimants while Florida curtails benefits sharply according to base-year earnings.

The UI program is widely regarded as out of control, in part because the public does not understand or accept the ground rules and, in part, because these ground rules differ according to where one lives.<sup>1</sup>

The policy questions addressed here are: Who is substantially attached? And how many weeks should they get for having worked only short periods? The States have wrestled with these questions and come up with widely different answers. In addition, the Congress is again considering extending the duration of benefits.

This report focuses first on why these differences in State policy exist and on the strengths and weaknesses of the different requirements used. Second, it looks at new data on insurability rates. Finally, it asks whether there are consistent definitions that would help make current policy less arbitrary.

## Evolution of the Present Requirements

The policy of requiring evidence of work in a recent

period has at least three rationales.<sup>2</sup> First, it serves to exclude new entrants or reentrants to the work force, who suffer no loss. Second, it is appropriate in an *insurance* program that there be a period of time in which workers earn their rights and some contributions are paid on their behalf (unlike worker's *compensation*, where persons are covered from the first day of work). Finally, there is the explanation (with which this report is concerned) that recent work history is part of a series of tests, along with the reasons for termination of the last job and evidence of continuing availability, that establish the work-oriented motives of the applicant. In this sense, "the monetary determination of eligibility," as bureaucrats call the qualifying requirement, is the first screen of a work test.

Some ambivalence exists over why recent work should be required, but even less agreement exists about how to measure it. Both in the United States and foreign countries, the length of time spent working is the preferred measure (rather than earnings), but few States use it.<sup>3</sup>

In 1936, the Social Security Board recommended weeks of work as the most appropriate way to measure attachment to the labor force. The Board suggested to the States that 13 weeks appeared to constitute sufficient attachment. A majority of States, however, quickly abandoned the concept when it became apparent that requesting weeks of work data from employers involved a high administrative cost for the State agencies.

A solution proposed was to substitute earnings measures for weeks of work. These proxy measures were easily obtained from the quarterly pay records that most State UI agencies were already collecting and that employers were also recording for the Old Age and Survivors Insurance program. As a result, by 1939, only 3 States actively used weeks of work as a measurement, while 32 States used a multiple of the weekly benefit amount, and 16 States used a flat minimum

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amount of base-year earnings. With changes in wage levels and benefit amounts, these proxies became unsatisfactory and had to be amended.<sup>4</sup>

Policy toward paying benefits in seasonal industries has also affected wage-qualifying requirements.<sup>5</sup> Provisions calling for special treatment of seasonal workers and seasonal employers were included in the original laws of 20 States and have been incorporated at one time or another in the laws of 33 States. Many were never applied because of difficulties in defining seasonality and in distinguishing between workers who worked only seasonally and those who also worked out of season. Eventually, most of these provisions were repealed. Instead, States used their coverage provisions and their wage-qualifying requirements to accomplish the same end. However, with the Federal extension of coverage to firms with one or more employees and to new sectors, screening short-term workers has relied more on the wage-qualifying requirements. Congress has intervened in a minor way by taking the initiative to exclude certain groups such as professional athletes and school employees in between terms.<sup>6</sup>

Many pressures, ranging from administrative concerns to political and economic considerations, have altered the Social Security Board's initial simple idea of 13 weeks of work as proof of substantial attachment to the labor force. The States have departed from the direct measurement of employment to the measurement of earnings instead.

A review of current practices shows the strengths and weaknesses of the definitions currently used.

## Various Definitions of Attachment

States use four types of definitions of previous work: weeks of work, high-quarter multiple, multiple of weekly benefit amount, and flat amount of earnings.

*Weeks of work* is used in 13 States. *High-quarter multiple* is used in 16 States. Earnings in the base year must be a multiple (usually 1.25 or 1.5) of the highest-quarter earnings in the base year. *Multiple of weekly benefit amount* is used in 16 States and Puerto Rico. Base-year earnings must at least equal a multiple (usually 30 to 40 times) of the weekly benefit amount. If the weekly benefit is half the weekly wage, then 30 times the weekly benefit is presumably the equivalent of 15 weeks and 40 times is the equivalent of 20 weeks. *Flat amount of earnings* is used in eight States. The measure is either a flat amount of earnings any time during the base year or a minimum earnings requirement that must be satisfied for 2 quarters.

Some of these measures are used conjointly with others, either as alternatives or as substitutes. A more complete description of these measures is given in the Appendix.

## Evaluation of measures

*Weeks of work.* The weeks of work or hours worked (Washington State) is conceptually closest to time worked, the measure originally intended. It has not been used extensively because it may require that, after a claim is filed, the claimant's employers must report on weeks worked as well as earnings. If employers would report on weeks worked on a regular basis, there would be no problem. This measure specifies directly and explicitly the amount of prior attachment required. High- and low-paid workers are treated alike. The same period of employment is required of all workers regardless of how much they earned per week.

In crediting weeks of work, it is necessary to have some minimum specified earnings or hours worked to define a week of work. For reasons of equity, an hours definition is preferred.

The Department of Labor (DOL) recommends a standard of between 14 and 20 weeks worked in the base period.<sup>7</sup>

*A multiple of high-quarter earnings.* This is one of the substitute measures for time worked that was selected for administrative simplicity. It is an inaccurate proxy, especially for those who work a small part of the base year. For example, a requirement of earnings at 1¼ times high-quarter earnings would qualify an individual with 8 weeks in the high quarter and 2 weeks outside for a total of 10, but an individual with 13 weeks in the high quarter and 3 weeks outside for a total of 16 would not qualify. Both would have earnings in 2 quarters, but the person with fewer weeks would qualify and the one with a longer work record would not.

*Multiple of the weekly benefit amount.* This definition has a powerful bias in favor of claimants with high weekly wages. Highly paid workers whose weekly benefits are limited by the maximum to less than half their weekly wage can earn enough to qualify for the maximum weekly benefit in a shorter period of time than low-paid workers need. For example, in a State with a maximum of \$200 and a qualifying requirement of 40 times the weekly benefit amount, claimants A and B would meet the requirements with vastly different amounts of work:

	Claimant A	Claimant B
1. Earnings per week	\$300	\$100
2. Weekly benefit amount	\$100	\$ 50
3. 40 times weekly benefit amount	4,000	2,000
4. Number of weeks of work necessary to qualify (3 divided by 1)	13⅓ weeks	20 weeks

Claimant A at the maximum needs only 13½ weeks of work to qualify while claimant B needs 20 weeks. This discriminatory effect against low-wage earners has been tested and substantiated empirically.<sup>8</sup>

*A flat earnings amount.* This definition does not limit benefits to the workers who have a substantial attachment to the labor force and does not ensure that workers with substantial attachment will qualify. High-wage workers can meet the requirement with very few weeks of work, while low-wage workers need many weeks. Because the test so clearly discriminates against low-wage earners, it is the worst substitute for the weeks of work measure.

## Insurability Rates

For the first time data are available to help assess the impact of the various qualifying requirements on the labor force protected by UI.<sup>9</sup> One data source is obtained by simulation from updated State wage distributions set against a computer model of all State UI provisions.<sup>10</sup> This has been used to estimate the approximate proportion of covered workers in each State who would be insured by the State's present qualifying requirement. This creates the "insurability rate" shown in Table 1.

In 1966, Haber and Murray reviewed State and national studies of work experience in the labor force with particular attention to the distribution of full-time and part-time workers.<sup>11</sup> They leaned toward the conclusion that about 25 percent of the work force probably should not receive benefits and recommended 20 weeks of base-year work or its equivalent as the appropriate requirement for achieving this result.

By the Haber-Murray criterion, the insurability rates that the simulation results show to be now in effect appear too high. No State excludes 25 percent. Only 4 States exclude as many as 20 percent.

More fundamental questions, however, must be answered before an assessment can be made of insurability rates. What is the significance of the insurability rate? In how many States does a 75 percent insurability rate actually go with a requirement of 20 weeks of work? Is a State's insurability rate a useful criterion if a given qualifying requirement produces widely different insurability rates in different industrial sectors?

## Norms and policies

These questions cannot be fully answered as yet, but some recent studies are suggestive.

The same insurability rates can be reached by different kinds of measures, including measures that are totally unsatisfactory for reasons previously given. A California study has estimated the exclusion rate (1

TABLE 1. Insurability rates, 1980

State	Covered workers	Monetarily eligible	Proportion of monetarily eligible
AL	1,450,822	1,339,998	0.924
AK	150,239	139,903	0.931
AZ	951,773	787,062	0.827
AR	837,522	788,688	0.942
CA	9,503,307	8,763,177	0.922
CO	1,176,677	1,068,341	0.908
CT	1,447,979	1,368,456	0.945
DE	261,146	242,713	0.929
DC	226,551	210,087	0.927
FL	3,437,739	2,963,067	0.862
GA	2,079,624	1,938,756	0.932
HI	341,146	331,565	0.972
ID	343,646	297,265	0.865
IL	4,950,670	4,539,420	0.917
IN	2,427,476	2,198,678	0.906
IA	1,248,522	1,090,926	0.874
KS	995,038	903,198	0.908
KY	1,276,968	1,098,295	0.860
LA	1,503,840	1,436,678	0.955
ME	446,450	377,858	0.846
MD	1,667,028	1,588,912	0.953
MA	2,710,443	2,602,736	0.960
MI	4,038,760	3,911,798	0.969
MN	1,795,434	1,696,174	0.945
MS	870,450	824,251	0.947
MO	2,036,563	1,873,952	0.920
MT	292,996	220,846	0.754
NE	667,502	637,853	0.956
NV	292,347	267,694	0.916
NH	385,689	340,424	0.883
NJ	3,237,293	3,116,842	0.963
NM	457,526	386,821	0.845
NY	7,865,775	7,503,937	0.954
NC	2,465,549	2,331,932	0.946
ND	233,669	186,075	0.796
OH	4,637,413	4,465,257	0.963
OK	1,150,060	1,026,923	0.893
OR	1,041,510	871,840	0.837
PA	4,952,316	4,711,214	0.951
RI	429,263	412,599	0.961
SC	1,183,334	1,129,181	0.954
SD	247,921	186,570	0.753
TN	1,799,806	1,648,454	0.916
TX	5,322,803	5,025,293	0.944
UT	503,269	473,674	0.941
VT	206,178	193,449	0.938
VA	2,044,318	1,776,535	0.869
WA	1,489,372	1,157,284	0.777
WV	696,178	621,758	0.893
WI	2,106,026	2,009,380	0.954
WY	168,545	139,957	0.830
Total	92,052,574	85,223,746	0.926

minus the insurability rate) of various types of previous work requirements on the California population.<sup>12</sup> The results are seen in Table 2.

TABLE 2. Exclusion rates of selected qualifying requirements on California population

Qualifying requirements	Proportion of claimants with at least \$750 in earnings during the base period who would be ineligible (in percent)
Earnings	
\$1,000	4
1,200	7
1,500	11
2,000	19
Weeks worked	
10	6
12	10
14	14
20	25
Rates of high-quarter earnings	
1.1 × high-quarter earnings	9
1.2 × high-quarter earnings	12
1.3 × high-quarter earnings	20
Multiple of weekly benefit amount	
30 × weekly benefit amount	10
40 × weekly benefit amount	20

This is not entirely satisfactory because it specifies only the incremental ineligibilities beyond the effects of the California \$750 base-period earnings requirement then in effect. But the results show that the intensity of a given measure can be adjusted to suit any desired proportion of exclusions, depending on the type of measurement used even though the people affected are different. Qualifying requirements must be judged by their type *and* their effect on insurability rates.

Another study has looked at the effects of the various qualifying requirements on the population of four different States: Minnesota, Michigan, Oregon, and New York.<sup>13</sup> In addition, records assembled by the DOL and cooperating States have produced results for the States of Iowa, Pennsylvania, and Utah.<sup>14</sup> The estimated effects of alternative weeks of work requirement in these States are seen in Table 3.

Data from all these States are not strictly comparable (some apply to claimants, some to all workers with wage credits) but they are enough alike to give some impression for the first time of how severe the effect of adjusting the weeks worked requirement is on exclusion rates. A 20-week requirement appears to make from 10 percent to 25 percent ineligible, depending on the State; with a 14-week requirement, from 5 percent to 14 percent are ineligible. For every 1 week added to the requirement, there will be a rise of 1 to 2 percentage points in the proportion of workers made ineligible until about 30 percent will be ineligible with a 26-week requirement.

The evidence casts some doubt on the relationship of

the 20 weeks minimum requirement to a 75 percent insurability rate as suggested by Haber and Murray. Results from this study suggest that to achieve a 25 percent exclusion rate requires a minimum requirement closer to 22 weeks.

Much more significant, however, is how different an impact the same requirement has on the insurability rate of different States. A 20-week requirement insures as many as 90 percent in Utah and as few as 75 percent in California.

This raises a basic question. Does it make any sense to try to find a norm applicable to all States using the rate of insurability of the State as a whole for the criterion? The insurability rate of the State as a whole is only the weighted sum of the different insurability rates in each industry. Each industry has its own insurability rate associated with any given qualifying provision. For example, in Iowa the 1¼ times high-quarter earnings requirement disqualifies about 15 percent of claimants in "services" and only 9 percent in "manufacturing."<sup>15</sup> Another State using the same requirement but with a different mix of "services" and "manufacturing" in its economy will have a different overall insurability rate.

It is fairly clear from the data that any given provision can produce widely different insurability rates in States with widely varying economic structures.

#### The insurability rate as a norm

The thrust of this argument is that the sensitivity of qualifying provisions to the economic composition of the State outmodes established concepts about norms. Because of this sensitivity, a given qualifying provision will be on target in terms of a desired insurability rate in one State and off target in another State. Is there any way out of this dilemma?

A clue to this answer is contained in the oft-cited norm for the maximum weekly benefit: the maximum should be a specified fraction of each State's average weekly wage in order to allow sufficient latitude for the individual replacement rate to apply to the great major-

TABLE 3. Percentage of workers who would be excluded by various measures of attachment in selected States

State	Required weeks of work in base period					
	14	16	18	20	22	26
California	0.13	—	—	0.25	—	0.35
Iowa	0.13	0.15	0.18	0.20	0.23	0.31
Michigan	0.09	0.13	0.18	0.20	—	0.29
Minnesota	0.13	0.15	—	0.24	—	0.33
New York	0.05	0.07	—	0.13	—	0.28
Oregon	0.09	0.10	—	0.16	—	0.29
Pennsylvania	0.16	0.17	0.18	0.22	0.25	0.32
Utah	0.04	0.05	0.08	0.10	0.17	0.32

ity. This approach identifies objectives but allows for variation according to the economies of the States.

Such a norm can be devised for the work-qualifying requirement. A desired eligibility rate should be set for the State economy as a whole, but in terms of its effect on the State's various economic sectors.

As an example, the norm could be that a State's qualifying requirement should not be so high as to make ineligible over 25 or perhaps 33 percent of the work force in any major industry. Such a recommendation would treat States alike in terms of their industry mix. Data are available in most States to apply such a norm.

Here is an illustration of how it might work in practice: Oregon should not require over 14 weeks (or its equivalent) because above that level more than one-third of its agriculture, forestry, and fishing sector employees with wage credits become ineligible. Pennsylvania, on the other hand, should not require over 20 weeks because beyond that more than one-third of those in the service sector become ineligible.<sup>16</sup>

This kind of objective and the previous work requirements to reach them can soon be gleaned from the new longitudinal data file (Continuous Wage Benefit Histories on a State by State basis) now being developed by the DOL.

## The Discontinuity Problem

Regardless of how complex a standard might be devised for the State wage-qualifying requirements, and even when the best measures of "previous work" are used, there is still a problem with the whole idea of "substantial attachment." Someone just short of the requirement gets nothing, and someone just over the requirement may be entitled to several hundred dollars (in Pennsylvania over \$1,500). The threshold, especially when seen from immediately below the qualifying level, is arbitrary indeed.

Some State policy partially meets the problem. These States scale down benefits for those with relatively few weeks worked, using the "variable duration" approach. While these States differ in how many benefit credits they give for each week worked, the typical State gives two-thirds of a benefit week for each week worked. Such a State might require 15 weeks to qualify and allow a minimum of 10 weeks of benefits.

This could be the departure point for an approach that completely bypasses the troublesome issue of "substantial attachment" and also eliminates the severe "notch" or discontinuity at the threshold. The variable duration schedules, of the kind described, can be continued downward as far as 0 benefit weeks for 0 work weeks. Then there would never be a question of "substantial attachment," only a question of how much attachment. If it is minor, so would be the entitlement to benefits.

The argument against this is that those with short duration of work may have greater economic need and therefore should be entitled to longer benefits, but such a contention leans too heavily on a welfare approach to UI. It also presumes that short-time workers are those most in need. This may be true in some instances, but many short-time workers are the additional family earners that characterize an increasing number of today's families. Furthermore, the workers affected include those in seasonal industries where the wage bill is subsidized with unemployment benefits and less-than-cost tax rates. Rather than include some and exclude others, a continuous work-benefit schedule would include them all but at appropriately reduced benefits.

## Conclusions

Investigation of problems with qualifying requirements has involved duration policy. Policymakers should pay more attention to the conjunction of these subjects because the issues on either side cannot be resolved alone. Particularly with benefit duration of 52 and 65 weeks maximum under consideration, the subject of duration minimums and qualifying requirements deserves further attention.

The discontinuity inherent in the concept of "substantial attachment" can be removed only by relating brief duration of benefits to brief periods of base-year work.

Short of eliminating this notch in the schedules, the issues of "substantial attachment" must be solved in terms of appropriate time-at-work measures and insurability rates as they affect each State's particular industries.

## Notes

1. See Richard T. Curtin and Michael Ponza, "Attitudes Toward and Experience With Unemployment Compensation Among American Households," in *Unemployment Compensation: Studies and Research* (Washington, D.C., National Commission on Unemployment Compensation, 1980).

2. See William Haber and Merrill G. Murray, *Unemployment Insurance in the American Economy* (Homewood, Ill., Richard D. Irwin, June 1966), p. 281.

3. Isabel Craig and Saul J. Blaustein, *An International Review of Unemployment Insurance Schemes* (Kalamazoo, Mich., The W. E. Upjohn Institute for Employment Research, January 1977).

4. George S. Roche, *Entitlement to Unemployment Insurance Benefits* (Kalamazoo, Mich., The W. E. Upjohn Institute for Employment Research, 1973).

5. Marinne Sakmann Linneburge, "Seasonal Em-

ployers and Seasonal Workers Under State Compensation Laws," *Social Security Bulletin*, November 1941, pp. 13-26.

6. Public Law 94-566, 1976.

7. *Unemployment Insurance Legislative Policy. Recommendations for State Legislation, 1962* (Washington, D.C., U.S. Department of Labor, Bureau of Employment Security), p. 53.

8. Christopher Pleatsikas and others, *A Study of Measures of Substantial Attachment to the Labor Force* (U.S. Department of Labor, Employment and Training Administration/Unemployment Insurance Service, 1978).

9. The ratio of successful monetary determinations to applicants is published by the DOL, but there are limitations in using it for comparative purposes, including lack of uniformity in the data collection.

10. This simulation of the economy and the UI system was prepared by the Urban Institute under contract to the DOL for use by the National Commission on Unemployment Compensation.

11. Haber and Murray, *Unemployment Insurance*.

12. "Characteristics of Claimants in the Study Sample," mimeographed, California Employment Development Department, October 1977.

13. Pleatsikas and others, *A Study of Measures*.

14. "Effects of Alternative Qualifying Requirements on the Exclusion of Covered Workers from Insured States" (Department of Labor, Employment and Training Administration/Unemployment Insurance Service, Division of Research Services, March 26, 1980).

15. Ibid.

16. "Effects of Alternative Qualifying Requirements."

## Appendix

### Weeks of work

Of the 13 States that use weeks of work, 6 require 20 weeks: Florida, New Jersey, New York, Ohio, Rhode Island, and Vermont. The remaining 7 require less: 14 weeks in Hawaii and Michigan, 15 weeks in Minnesota and Wisconsin, 16 weeks in Washington, 18 weeks in Oregon, and 19 weeks in Utah. Six of the 13 States that use weeks of work attach modifications, additional requirements, or alternatives to the weeks of work requirement.

### High-quarter-multiple States

Of the 16 States that require base-period wages equal

to a specified multiple of high-quarter earnings, 11 require 1½ times the high-quarter wage: Alabama, Arizona, District of Columbia, Georgia, Maryland, Montana, Nevada, North Carolina, Oklahoma, South Carolina, and Texas. Kentucky requires 1⅔ times the high-quarter wage; Idaho, Indiana, and New Mexico require 1¼ times the high-quarter wage; and South Dakota requires 10 times the weekly benefit amount outside the high quarter. Such provisions usually specify the minimum dollar amount of base-period wages or high-quarter wages. Three of these 16 using the high-quarter multiple also have additional or alternative requirements.

### The multiple benefit States

Some of the 16 States listed in this category express the required base-period wages as a stated multiple of the weekly benefit amount. Others construct the requirement on this basis but express it in the statute as specific dollar amounts of base-period earnings for each of the weekly benefit levels. In three of the States, Pennsylvania, Puerto Rico, and the Virgin Islands, the relationship between required base-period wages and the weekly benefit amount varies with the benefit level.

In the other 13 States, the multiple is the same at all benefit levels: 30 times (Arkansas, Colorado, Hawaii, Kansas, Louisiana, Massachusetts, and Missouri); 36 times (Delaware, Mississippi, Tennessee, and Vermont); 40 times (Connecticut and North Dakota). For individuals qualifying for less than the maximum weekly benefit amount, these multiples ensure that wages in more than 1 quarter are required. Because this may not be the case with workers with more wages in 1 quarter than required for the maximum weekly benefit amount, 12 of these States specifically require wages in more than 1 quarter.

### The flat dollar requirement

Nine States have a flat dollar qualifying requirement. Only California and West Virginia among these States do not attach an additional requirement. The additional requirements are designed to ensure that the worker had wages or employment in more than 1 calendar quarter.

Five of these States specify a flat dollar amount that the workers must have earned in a base-period quarter outside their high quarter: Illinois, \$275; Iowa, \$200; Maine, \$250; Nebraska, \$200; and New Hampshire, \$300. Alaska simply requires \$100 outside the high quarter and Wyoming requires wages in at least two quarters of the base period.

# Disqualifications for Quits To Meet Family Obligations

Margaret M. Dahm  
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In general, unemployment insurance (UI) disqualifications are intended to separate unemployment due to economic causes from unemployment due to other causes. Except in fraud cases, disqualifications are not intended to punish claimants for “wrong” actions. The major causes of disqualification from benefits are voluntary separation, separation without good cause, discharge for misconduct connected with work, refusal of suitable work, and participation in a labor dispute. This report is concerned with the first cause, voluntary separation, and its particular effect on women. Women are often disqualified for reasons directly related to their sex.

Second to pregnancy, which is discussed in a separate report in this compendium, the most frequent sex-related cause of disqualifying women has been marital or domestic obligations. Such obligations include marriage, moving with spouse, lack of babysitter, and family illness, among others.

When the UI program was first established, good personal cause for leaving did not disqualify one from benefits. Gradually, however, restrictions of two significant types were applied: good cause for leaving was limited to reasons connected with work or the employer, and categories of claimants—especially women and students—whose labor force attachment might be questioned were disqualified. The degree to which disqualifications that discriminate against women are applied depends at any time on social attitudes and on the number and proportional increase of women in the labor force.

A review of nearly 400 decisions concerning quits because of family obligations reveals a wide variety of treatment from State to State, depending to some extent on whether the State law provides that “good cause for leaving” must be work-connected (28 States) or that family obligations specifically are disqualifying (13 States). Restrictive provisions tend to be more severe for women than for men. In California and Pennsylvania, two recent State court decisions have declared the State UI provisions concerning family obligations unconstitutional as a denial of equal protection under the

law and due process of law under the 14th amendment. These court decisions have vigorously challenged and rejected fiscal constraints and administrative convenience as justification for abridging fundamental rights guaranteed by the 14th amendment.

The National Commission on Unemployment Compensation (NCUC) should take a strong public position opposing disqualification for marital and domestic obligations. It could also recommend that a Federal statutory requirement be added to the Federal Unemployment Tax Act (FUTA), either to prohibit States from restricting good-cause provisions to those connected with the work or attributable to the employer, or to eliminate special disqualifications for quits because of marital and domestic obligations.

Or, NCUC could urge the Department of Labor to develop, in consultation with the States, a Federal position on the interpretation of the word *voluntary* that is contained in the quit disqualification in most State laws.

## Evolution of the Problem

Unemployment Insurance (UI) is designed to provide regular members of the covered labor force with partial replacement of wages lost during temporary periods of unemployment due to economic causes. When actual statutory language is developed, the meaning of almost every phrase of this statement of purpose must be refined. Who are “regular members,” and what is the “covered labor force”? How much of lost wages should be replaced? How long is a “temporary period of UI”? And, pertinent to this discussion, how is “reemployment

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due to economic causes" defined? Many answers have been given to these questions by different States and at different times.

Unemployment Compensation is designed to protect against wage loss during unemployment due to economic causes. The disqualifications, except for that imposed because of fraud in connection with a claim, are intended, not to punish claimants for "wrong" actions, but to delineate the unemployment which is not due to economic causes, and against which, therefore, the system does not insure.<sup>1</sup>

This statement on disqualifications in 1966 by Willard Wirtz, then Secretary of Labor, was understood by those who shaped the program at its inception in the 1930's.

The usual causes for disqualification from benefits are voluntary separation, discharge for misconduct connected with the work, refusal of suitable work, and participation in a labor dispute. These provisions are designed to limit the risk covered by the program, and there is no doubt that they are necessary ones. However, the disqualification for voluntary leaving, as it has evolved, includes features that have an especially adverse effect on working women. Except for New York, all States originally had disqualifications for voluntarily leaving work without good cause. Four States limited good cause to those connected with the work, with the employment, or attributable to the employer. New York until 1941 had no disqualification for workers who left their jobs voluntarily.

In all States the disqualification denied benefits for a period of weeks, ranging from 3 to 9, generally in addition to the waiting period. Wisconsin canceled wage credits from the employer who was left but permitted payment based on previous employment after 4 weeks' disqualification. Four States reduced total benefits payable by the number of weeks of disqualification, which ranged from 2 to 4.

Except in the four States with limited good cause, these original provisions recognized that there are personal circumstances that may justify leaving a job voluntarily, such as acceptance of a better job that fails to materialize or illness in the family, as well as such personal work-related causes as allergies or other undesirable reactions to the work environment.

Generally, the original disqualifications referred to work separations that were voluntary on the worker's part. Inclusion of the word *voluntary* is not particularly significant in States that recognize good personal cause. It may become critical when a quit for personal reason occurs in a State that limits good cause to a work- or employer-connected cause. It seems a distortion of language to rule that a worker who is forced to leave work because of a broken arm left voluntarily.

The case for labor mobility implicit in leaving a job to take a better job and its implications for UI were

ably stated in 1960 by Commission Chairman Wilbur J. Cohen, as follows:

... in seeking and obtaining new employment, it should be to the advantage of everyone in the economy in the long run to see to it that the individual has an opportunity to ascend the economic ladder, to make better use of his skills, to improve his skills, and to increase his income. Unemployment insurance should be formulated and administered so that when an individual takes a risk of seeking new and better employment, or trying to obtain employment at higher skills or higher wages ... he does not have unreasonable barriers thrown in his way in case he makes a mistake.<sup>2</sup>

Clearly, some personal reasons for leaving work raise questions about the worker's availability. When the penalty for a voluntary quit was to deny benefits for a relatively short period, the limitations on good cause may not have resulted in substantial denial of benefits to otherwise eligible workers, since many of them would not have been available for that period in any case.

As the disqualification period lengthened, the situation changed. Unemployment that began with a disqualifying act may subsequently become attributable to economic causes as the worker searches for a job. The point at which this happens may vary with individuals and with the labor market.

In the early days, claim examiners had wide discretion in deciding what constituted good cause. Until about 1940 there was so much unemployment that the three major causes of disqualification seemed sufficient to prevent payments to individuals who might rather draw benefits than work. But World War II and the adjustment from depression conditions to wartime full employment brought objections to examiners' discretion. Full employment prepared the public for a general tightening of disqualification provisions.

Another factor in the drive for a disqualification clampdown was described in 1955:

The adoption of experience rating, which became widespread in the 1940's, was also an influence in this period. Under experience rating ... an employer's tax rate is increased or decreased according to his experience with unemployment. In most States an employer's tax rate depends on the benefits paid to his former workers. The financial relationship between an employer's tax rate and the payment of specific benefits seems to imply employer responsibility for the unemployment being compensated, and, consequently, leads to the belief, on the part of some employers, that unemployment should not be compensated if it involves no fault on the employer's part.<sup>3</sup>

## Focus on Family Obligation

The original State laws contained no disqualifications of specific groups. General tightening of disqualification provisions also led to disqualification of whole cate-

gories of claimants whose attachment to the labor force might be questioned. These groups included students; pregnant women; and workers who leave their jobs because of marriage, moving with spouses, or marital, filial, or domestic obligations.

In 1940 only four States disqualified workers for leaving for such causes as marrying, moving to be with spouses, or fulfilling other marital obligations. By December 1941, 15 States had laws disqualifying married women under various conditions now classified as marital or domestic-obligation provisions. Minnesota and Wisconsin specifically disqualified women who were separated from their jobs because of an employer's rule against employing married women. Minnesota's disqualification did not apply to a woman who was the main support of an immediate member of the family. Wisconsin law did not apply if the woman proved she was available, able, and willing to work. The agency was authorized to consider an employee's financial circumstances.

The penalty for marital-obligation separations was disqualification for a limited period in only one State, Michigan. Wisconsin canceled benefit rights earned prior to the unemployment, but only if the employer notified the unemployment commission of such disqualifying conditions. Nebraska, Nevada, and North Dakota canceled wage credits earned prior to marriage for a "female individual whose employment was discontinued because of marriage." Indiana and Wyoming also canceled wage credits, but only for voluntarily leaving to marry; in Indiana the cancellation could be waived for good cause. Eight other States disqualified claimants for the duration of the unemployment, or longer. "Longer" meant that the claimant must have been reemployed and earned a specific amount, such as a multiple of the weekly benefit amount (WBA), or worked a specified number of weeks. The separation in some of these States did not have to be voluntary; it could result simply from an employer's policy of discharging married women.

One factor in this profusion of limitations was the difficulty employers were having in keeping workers. Women married to servicemen tended to try to be close to their husbands as long as their husbands were in the United States; they followed them from one station to another, returning to their homes when the servicemen went overseas. Employers whose female employees left for such reasons and who had trouble filling the vacancies were further upset when benefits to those women were charged to their experience-rating accounts.

The use of special provisions to deny benefits to married women otherwise eligible did not arouse any widespread feelings of inequity, because of the general public attitude that married women should not work for wages.

By 1955, 18 States had marital-obligation disqualifications; 11 denied benefits for the duration or longer; only 1 canceled wage credits. The trend to adopt mari-

tal obligation disqualifications continued until 24 States had such provisions in 1964.

In 1971, 23 States had marital-obligation provisions. In March 1972 the U.S. Senate passed the Equal Rights Amendment (House Joint Resolution 208) in the exact form approved the previous year by the House of Representatives.

The impact of this action—and of the forces leading to it—was dramatic. By October 1973 only 15 States had marital-obligation provisions. The number of States with such provisions now stands at 13.

## General Voluntary Quit Disqualifications

By 1948, 16 State laws disqualified claimants unless the reason for leaving was attributable to the employer or connected with the work. In some cases even physical inability to do the particular job was not good cause, even though the individual was available for and able to do other work. A few States deleted the condition that the leaving be voluntary, while others, which did not amend their laws, simply seemed to ignore it.

By 1955, 21 States disqualified claimants who quit for other than work-related reasons or for reasons not attributable to the employer. By 1964, 24 States restricted benefit authorization by regulations; by May 1979, 28 States did so.

### Limited good cause

States that restrict good cause in voluntary quit provisions (to reasons related to work or to the employer) tend to disqualify claimants much more readily than appeals tribunals in States that look more closely at claimants' personal situations and attempt to evaluate the "reasonableness" of their actions. There are exceptions, of course. For example, in Arizona, which is a restricted-good-cause State, the benefit policy rules of the State Department of Economic Security provide the following:

A spouse or unemancipated minor who leaves work to accompany or join the head of the household who has moved to a new locality from which it is impractical to commute shall be considered to have done so for a compelling personal reason not attributable to the employer and not warranting disqualification for benefits provided that the head of the household moved:

1. For a compelling personal reason; or
2. For the purpose of establishing a domicile at a new locality for 3 months or longer; or
3. From a locality other than that in which the spouse or unemancipated minor lived and the head of household had no intention, within the foreseeable future, of establishing a domicile at the locality that the spouse or unemancipated minor left.

For this purpose, "head of the household" is a person who is the main support of a family. Under this rule the separation of an Arizona claimant (who left her job to join her husband in another locality) was held to be for a compelling personal reason not attributable to the employer and not disqualifying. Her husband, who was receiving retirement or disability benefits substantially more than the wages the claimant had been earning, was deemed the head of the household.

States with limited good-cause provisions vary in their treatment of quitting to take another job. If the new job fails to materialize and it was a better job, some States will pay benefits; others will not.

Similarly, some States hold unsuitability of a job to be a good work-connected cause, whereas others will disqualify a claimant who left unsuitable work. Observance of union rules is also treated in various ways by the States. Some hold that union members are bound by collective bargaining agreements in their individual actions, making them subject to voluntary quit disqualifications in certain situations such as retirement; other States do not regard union agreements and actions that follow as voluntary actions on the part of individuals.

*Overall quit penalties up.* Whether or not good cause is limited in general voluntary quit provisions, the penalties for disqualifying separations have tended to increase. In January 1979, 29 States imposed a penalty for a voluntary quit that disallowed benefits for the duration of unemployment or longer. Two of these States may also reduce the potential benefit payable even after subsequent employment. In one State the unemployment commission can choose to disqualify a person for either the full duration of unemployment or a fixed period, in which case potential duration is reduced.

Twelve States impose a time period for disqualification and also reduce benefits equally. One cancels benefit rights on the basis of the employment remaining but permits payment based on other work. One calls for a forfeit of all benefits accrued up to the time a person quits.

### Marital Versus General Disqualification for Voluntary Quits

For the 13 States with special provisions for family obligations, Table 1 compares the disqualification penalties for leaving for family obligations, for marital obligations, and for leaving "voluntarily without good cause." Only 2 of the 13 States, Colorado and West Virginia, limit general good cause to work-connected reasons.

As the table shows, 12 of the 13 States with disqualifications for family obligations disqualify for the

TABLE 1. Comparison of penalties for leaving because of marital obligations and for leaving voluntarily without good cause in States that have marital-obligation provisions<sup>1,2,3</sup>

State	Marital obligations: disqualification imposed	Voluntary leaving: period benefits denied
Colorado <sup>1,4</sup>	6-12 weeks with equal reduction in benefits	WF+12-25, with equal reduction in benefits, unless most recent employer paid less than \$500 in base period <sup>6</sup>
Idaho <sup>1,2,3</sup>	Duration plus 8 × WBA <sup>6</sup> in bona fide work; not applicable if claimant becomes main support of self or family	Duration of unemployment plus 8 × WBA
Kansas <sup>3</sup>	Duration plus 8 × WBA; judicial interpretation requires intent to withdraw from labor market	Week of occurrence plus 6 weeks
Kentucky <sup>1</sup>	Until worker subsequently employed in bona fide work	Duration of unemployment
Mississippi <sup>3</sup>	Until worker has earnings of 8 × WBA	Duration of unemployment plus 8 × WBA; marital, filial, domestic reasons not considered good cause
Nevada <sup>1,2,3</sup>	Until worker subsequently employed in bona fide work; not applicable if sole or major family support at time of leaving and filing a claim	Duration of unemployment plus 10 × WBA; week of occurrence plus 4 weeks if voluntarily left most recent work to enter self-employment
New York <sup>1,2</sup>	Until worker earns \$200, or has at least 3 days work in each of 4 weeks	Duration of unemployment plus 3 days' work in each of 4 weeks or earns \$200
Ohio <sup>1,3</sup>	Until worker earns \$60, or one-half average weekly wage, if less	Duration of unemployment plus 6 weeks in covered work, and earned 3 × average weekly wage, or \$360, if less
Oregon <sup>1,2,3</sup>	Until worker earns wages to WBA in 1 week subsequent to disqualifying act	Earns wages equal to WBA in 4 weeks subsequent to disqualifying act; if able, available, actively seeking work, registered, and reporting 8 weeks, administrator may then find claimant eligible

TABLE 1. (continued)

State	Marital obligations: disqualification imposed	Voluntary leaving: period benefits denied
Pennsylvania <sup>2,3,7</sup>	Until worker earns 6 × WBA; not applicable if, for substantial part of 6 months before leaving or when filing, was sole or major family support and such work not within reasonable commuting distance	Duration of employment plus 6 × WBA
Virginia <sup>2</sup>	Duration of employment plus 30 days in covered work	Duration of employment plus 30 days in covered work
Washington <sup>3</sup>	Until worker earns 5 × WBA, or 10 weeks in which claimant is otherwise eligible	Duration of unemployment plus WBA in each of 5 weeks
West Virginia <sup>1,3,4</sup>	30 days in insured work	Week of occurrence plus 6 weeks, and equal benefit reduction which is recredited if individual returns to covered work for 30 days in benefit year

<sup>1</sup> Leaving to marry.<sup>2</sup> Leaving to accompany spouse.<sup>3</sup> Leaving because of marital, parental, filial, or domestic obligations or circumstances.<sup>4</sup> Good cause for leaving is restricted to good cause related to the employment or attributable to the employer.<sup>5</sup> Weeks of filing.<sup>6</sup> Weekly benefit amount.<sup>7</sup> The Commonwealth Court of Pennsylvania, in *Wallace v. Unemployment Compensation Board of Review*, October 31, 1978, held the marital-obligation disqualifications provisions of the Pennsylvania UC law unconstitutional. An appeal is pending before the Pennsylvania Supreme Court.

SOURCE: U.S. Department of Labor, Employment and Training Administration, Unemployment Insurance Service.

duration or longer any claimant who leaves a job because of one of the marital or domestic obligations stated in the provision. Ten of this same group disqualify for the duration of unemployment or longer any claimant who voluntarily leaves a job without good cause under the State's general provisions, which are not restricted, except in Colorado and West Virginia.

Colorado has no duration of unemployment disqualification for either cause. For both marital obligations and good cause connected with the work, it reduces benefits, unless the employer who was left paid less than \$500 in the base period. It modifies the work-connected requirement for separations because of illness of the claimants or their families under certain circumstances, and for separations for accepting other work.

West Virginia reduces benefits of claimants by the weeks of disqualification if the claimants left voluntarily without fault on the part of the employer. But

individuals are reccredited with those benefits if they return to covered work for 30 days in the benefit year. The number of claimants who actually get such credits is not known. West Virginia also modifies the disqualification for separations to accept other work.

Overall the States treat the causes grouped as marital obligations as follows: leaving to marry is a disqualifying reason in eight States; leaving to accompany or join spouse is disqualifying in six States; leaving because of marital, parental, filial, or domestic obligations or circumstances is disqualifying in nine States. In three States the marital-obligation disqualification is not applicable if the claimant is or becomes "main support" or "sole or major support" of self or family, and, in the case of Pennsylvania, if "such work is not within reasonable commuting distance." The Pennsylvania marital-obligation provision, it should be noted, has been declared unconstitutional by the Commonwealth Court; an appeal is pending in the Supreme Court of Pennsylvania.

Although the relationship of penalties for general and special disqualifications differs among the States, a marital-obligation disqualification is automatic in all 13; the specific cause and circumstances cannot be considered. By contrast, 11 of these States have an unrestricted good-cause disqualification, under which special circumstances can be considered. It is very hard for the disqualified claimants to reestablish eligibility in the benefit year. They would have to be reemployed and work long enough to meet the additional earnings requirement, which can be as much as 8 times the weekly benefit amount, and then happen to become unemployed for a nondisqualifying reason. The only exception is in "main support" or "sole or major support" situations. This exception approaches, if it does not constitute, a needs test. It does have the effect of reducing the number of men penalized by the marital-obligation provisions.

## Special Impact on Women

The present situation represents some improvement over the early 1970's, when 23 States had marital-obligation provisions and 7 specified that they applied only to women. Marital-obligation provisions in California and Pennsylvania have been declared unconstitutional, and no State now specifies that these provisions apply only to women. Nevertheless, claimants disqualified under such provisions remain almost entirely women, as a review of current appeal decisions and court cases will show.

Because women continue to fulfill the roles both of worker in the paid labor force and of homemaker, they have dual responsibilities that may draw them away from jobs and the labor force for long or short intervals. Men also leave jobs for personal reasons.

Although they are less likely to leave a job for family obligations, they are doing so more often than they used to.

In a few of the appeals cases reviewed for this report, the wife had the better job and initiated the move to another area; the husband left his work to take his chances on getting work in the new location. In these situations, the husband was disqualified or found unavailable, depending on the State law.

UI was never intended for the individual who was not available for work—ready, willing, and able to work—or not doing what a reasonable person would do to get another job. The determination of an individual's availability can only be made *week by week*. Special family disqualifications are unnecessary for the purpose of denying benefits to those who are not in the labor force. While the child or the husband is ill, or until child care arrangements can be made, benefits would not be payable. Thus, the normal voluntary quit and availability requirements provide an adequate basis for paying or denying benefits. The special provisions are undesirable because they preclude consideration of the facts and because they may continue to cause denial of benefits long after any unavailability has ended.

### Commissions on status of women

During the 1960's two Presidentially appointed groups studied problems of women. Some of the economic problems women faced were examined through subgroups on social insurance and taxation. Both groups addressed the sex-discriminatory provisions in the UI program and recommended their repeal.

In 1963 a committee of the President's Commission on the Status of Women reported that women were dealt with severely under the system by all States, whether through statutory provisions or through administrative interpretations. In the area of marital and domestic obligations the committee made the following recommendation to the President's Commission on the Status of Women:

A woman who terminates her employment because of marital obligations, such as following her husband to a new location, but who subsequently and continuously engages in a search for work and otherwise maintains her availability should be considered as having quit for good cause and should not be disqualified from unemployment benefits. If it is found that this proposal has the effect of discouraging employment of women, it is recommended that payment of benefits in such cases be charged to the State's general unemployment fund rather than the former employer's account in the fund.<sup>4</sup>

In a similar vein, a 1968 task force made its recommendation to the Commission's successor, the Citizens' Advisory Council on the Status of Women:

Disqualifications from unemployment compensation for voluntarily leaving work should be so limited that an individual who leaves on account of family obligations, or of moving to accompany or be with spouse is not denied benefits for weeks when he or she is in fact ready, willing and able to work. If achieving this objective tends to discourage the employment of women, the benefits in such cases should not be charged to the claimant's former employer . . .<sup>5</sup>

### Testimony of Tamara Bavar

In March 1979 the National Commission on Unemployment Compensation received testimony in Detroit from Tamara Bavar, Chairperson of the Unemployment Insurance Task Force, United Automobile Workers, Region 1B Women's Council. Ms. Bavar reported the results of a survey of Region 1B women members on their experience in the UI system. Based on survey responses and on other experience, Ms. Bavar made the following recommendations:

It is unfair to disqualify a worker for voluntarily quitting when that worker has been forced to quit by pressing family circumstances. In these instances, quitting is not really voluntary. *We recommend that federal law provide that there be no disqualification for voluntarily quitting if the cause is attributable to the employer or to (substantial) personal reasons.* It might not be fair to charge an employer's account for a resignation for this kind of personal reasons, but the account should be charged if the quit was due to causes attributable to the employer.

### Appeals Decisions

To understand how States have treated various categories of family obligations in recent years, only 400 family-obligation appeals cases were reviewed during the period March to June 1979. Never before had such a large-scale review been made of *current* family-obligation disqualifications. The Department of Labor's Unemployment Insurance Service (UIS) made available copies of all appeals decisions it had received from the States during March and April 1979. Cases were sorted by State but not by issue. Thousands of cases from all 50 States were screened. All cases involving family obligations or circumstances were pulled, and at least some cases from every State were reviewed.

Although this method of collection does not constitute a random sample, it represents a cross section of practice in large and small States in all parts of the country. The decisions reflect the laws, regulations, court decisions, and policies of each State. No attempt was made to choose "good" or "bad" decisions for presentation.

For purposes of this discussion, separations for family obligations have been divided by four reasons for separation:

- Leaving to marry
- Leaving to move with spouse
- Leaving because of lack of child care
- Leaving because of other family obligations or circumstances, including family illness

Disqualification for quits to meet family obligations is closely related to quits for other reasons not connected with the employment or attributable to the employer. Cases from three different States illustrate each category of reasons for leaving. The cases show how a person in each category fared (1) in a State that provides specifically for family-obligation disqualifications; (2) in a State that statutorily limits good cause to reasons related to work or attributable to the employer; and (3) in a State that has neither kind of provision, but only a general disqualification for voluntary quits for good cause.

More than half the cases concerned leaving to move with a spouse. Many cases had to do with the fourth category, other family obligations—half again as many as leaving to marry or because of lack of child care. Although statutes do not refer to child care, this category is presented separately because it is a large subgroup with special responsibilities and problems of its own.

### **Leaving to marry**

Eight States specifically deny benefits to claimants who leave to marry. Because no cases of leaving to marry were among the 400 from these eight States, a case was chosen from Washington, which has a general marital-obligation provision. In all the cases that follow, benefits were denied. This appears to be an accurate reflection of the situation, since all but three claimants in the 25 cases reviewed were disqualified.

*Marital-obligation State.* In a Washington case, the claimant, a terminal operator in a paper company, requested a leave of absence to be married, but it was disapproved a week later. She resigned, giving 2 weeks' notice. The next day she learned the wedding was off. She did not reapply for work with her former employer because she knew that her replacement had been hired and trained. Under Washington law, claimants who would be subject to disqualification can avoid it by certifying to their availability and efforts to find work in each of 10 weeks if the primary cause of voluntary leaving was marital status or domestic responsibilities.

An intended spouse is not a relative or spouse, the referee held, nor is the situation marital when no mar-

riage has occurred. Accordingly, the claimant was disqualified in a referee's decision, which, with some modification, was later adopted by the Commissioner's Delegate.

*Good-cause-restricted State.* In a Maine case, the claimant, a cashier in a grocery store, left work to marry and moved with her husband, who was in military service, to Florida. Because she was unmarried at the time of separation, she could not qualify for the exception to the work-connected good-cause provision in the Maine law: that leaving was necessary to accompany a spouse. Therefore, she was held by the referee to have left voluntarily without good cause attributable to the employment or the employer and disqualified until she had earned 4 times her weekly benefit amount, or \$416. The Commission adopted the referee's decision.

*Unrestricted-good-cause State.* In a Nebraska case, the claimant, who worked on the assembly line for a radio antenna manufacturer, left to move to Missouri to be married. Leaving was held to have been without good cause, because it was for a personal reason not related to the work and not of a "necessitous and compelling nature." The claimant had implied at the hearing that she was unhappy in her job, but the main reason she left was to relocate. The claimant was assessed an 8-week disqualification by the referee.

### **Leaving to move with spouse**

The marital-obligation case selected is from Nevada, which has a disqualification for leaving to move with spouse that is not applicable if the claimant is the sole or major provider of family support at the time of leaving and filing a claim.

*Marital-obligation State.* In a Nevada case, the claimant had worked for a Reno hospital from January to December 1977, when she moved to Eugene, Oregon, presumably to marry, for the referee's decision states that the "record shows that claimant and her husband have been married about 1 year." She worked for her last employer, a Eugene hospital, as a part-time (24 hours weekly) housekeeping department employee at \$3.09 an hour, from April to August 1978. The employer had said he thought full-time work might be available for her within 2 months of hire, but he made no promises. No full-time work was provided, despite claimant's repeated inquiries. Meanwhile, claimant's husband spent time renewing his real estate license, then making unsuccessful efforts at real estate sales. He had a job prospect but not a promise in Bend, Oregon. The claimant quit her job to move there with him. She initiated her claim 1 week before her husband went to work. He had sold property that he had had before marriage to help with living expenses. The referee's de-

cision reads as follows: "Claimant had a modestly paid, part-time job. Her husband had no income from earnings. He was selling articles to pay living costs. Significantly, claimant quit because of her husband's occupational concerns, not he for hers. The preponderance of evidence fails to establish that claimant was the major support of the family when she filed her claim. *She had no income at that time. The record is silent on the matter of savings*" (emphasis added). The claimant was disqualified until subsequently employed in bona fide work.

*Good-cause-restricted State.* In a Wisconsin case, the claimant, a records clerk for over 10 years for a power and light company, left to accompany her husband to California, where he intended to accept a better job. The job failed to materialize. Good cause for leaving in Wisconsin law is spelled out as (1) attributable to the employer; (2) physical inability to do the work and no reasonable alternative; (3) health of a member of the immediate family, leaving claimant no reasonable alternative; (4) claimant's separation being in lieu of a suspension or termination of another employee; (5) acceptance of a recall to work for a former employer within 52 weeks after last working for the employer; (6) leaving within 10 weeks after starting work that could have been refused with good cause; or (7) because employer made employment, compensation, promotion, or job assignments contingent on claimant's consent to sexual contact or sexual intercourse. Referee found that, while in this case claimant might have had a valid personal reason for leaving, it was disqualifying under provisions of Wisconsin law. The referee's decision was affirmed by the Labor and Industry Review Commission.

*Unrestricted-good-cause State.* In a California case, the claimant last worked June 30, 1978. Her husband graduated from a military class on July 19, 1978. In anticipation of a move from Sacramento to Merced on August 2, 1978, the couple obtained an apartment in Merced July 15, 1978. After being moved by the military (and administrative notice was taken of the fact that the claimant was needed at home because no exact time can be calculated as to when military movers will arrive), the couple left on vacation July 19, 1978. They settled in their apartment August 2, 1978. The vacation was a strictly personal matter of a noncompelling nature, said the appeals board, particularly because the claimant had no assurance of a job when she left employment in June. She was held to have left work without good cause and was disqualified by the appeals board, which reversed the referee's decision.

#### **Leaving because of lack of child care**

The child-care problem can arise suddenly when a

babysitter becomes ill and the safety of young children is at stake, or it can be a long-standing or a temporary problem, as the following cases show. A significant proportion of all family-obligation cases involve responsibilities to teenagers as well as to infants and preschoolers.

*Marital-obligations State.* In a West Virginia decision the claimant, a hand decorator of glassware, working 5 days a week, 7 a.m. to 4 p.m., had returned from a 2-month leave during a period while her children were not in school. According to her testimony, she left work 3 days after her return, after a disagreement with her employer about the use of the telephone to inquire about her children. The claimant signed a statement that her babysitter was sick and no longer able to care for her three children, and that this problem had resulted in the claimant's inability to work out a notice with her employer. The board of review adopted the referee's findings as its own, part of which read as follows: "The acknowledged statement over claimant's signature and her testimony at this hearing are irreconcilable; consequently, this Examiner is reluctant to disturb the decision of the deputy." The decision is silent on several questions, such as the age of the children and why the claimant left suddenly: was it the disagreement with the employer, or the departure of the babysitter, or was there still another reason? The reviewers questioned the basis of the judgment of irreconcilability, without more facts in the decision, at three stages of appeal: the deputy, the referee, and the Board of Review. The claimant was held ineligible from 10 weeks after she left work, as "not available for full-time work for which fitted by prior training or experience" and disqualified from the day she left because she voluntarily quit employment "to perform parental duty" until she had worked 30 days in covered employment.

*Good-cause-restricted State.* In a Delaware decision, the Unemployment Insurance Appeals Board reversed the referee's decision disqualifying a male claimant in a parental-obligation case as having voluntarily left work without good cause attributable to the work. The claimant, an automobile mechanic, had informed his employer at the time he was hired away from another job that he was the father of an autistic child. He also informed the employer that his wife worked daily from 4 p.m. to midnight and that he had four other children who attended school until 3 p.m. each day. He requested that he be allowed to take his lunch hour between 3 p.m. and 4 p.m. daily so that he could care for his autistic child between the time his wife left for her job and his older children returned from school. The employer agreed to this "flexibility in the taking of the lunch hour." When it developed that this was the employer's busiest hour and his business was adversely affected, he requested that the claimant make

better arrangements for his family care. Claimant was unable to do so and voluntarily terminated his employment. The Board reversed the referee's decision and held that "the claimant voluntarily left his work for good cause attributable to his work," and was entitled to benefits.

*Unrestricted-good-cause State.* In a Maryland<sup>6</sup> Board of Appeals decision of January 1979, the findings of fact indicated that the claimant was a temporary packer in a plant where she was working the 3-to-11 p.m. shift when she left work. She was informed on the previous Friday that she could have a permanent position on the 11-p.m.-to-7-a.m. shift, but that she had to decide by Monday. When she could not make suitable babysitting arrangements by then, the employer refused to give her additional time to decide. Unable to accept a transfer to the permanent position, the claimant resigned.

At the time, the claimant's husband was working at night from time to time, and she could not rely on him to be at home with the three teenage children, whom she was unwilling to leave unsupervised at night. Three weeks after her resignation she made babysitter arrangements and began looking for full-time work without restriction.

The Board stated that "claimant now has been employed with the same employer for the last 3½ months." The Board held that the claimant's reason, inability to find a babysitter, was not work-connected, and, therefore, did not constitute good cause. However, the Board found that "mitigating circumstances are present in this case, and the maximum disqualification is not warranted." She was disqualified until 5 weeks after she left, because of voluntary leaving and because of unavailability, but thereafter was entitled to benefits for which she was otherwise eligible. The decision of the referee, which had held that the claimant had not left but had been discharged for reasons other than misconduct, was reversed.

Thus, the Board had affirmed the claim examiner's determination that she had voluntarily left without good cause. At all three stages, however, she was held to have been unavailable during the period when she had no babysitter.

#### **Leaving because of other family obligations**

Although this is an "all other" category, there are only half as many cases in it as in leaving to move with spouse. In addition to illness of members of the immediate family, this category also includes cases of obligations to parents. Male claimants appear in this group along with female, and one case involving a man is included.

*Marital-obligation State.* A Mississippi Board of Review decision affirmed a referee's decision, which in turn

had affirmed a claim examiner's decision disqualifying the claimant. In this case, the claimant voluntarily quit her job with a manufacturing company to care for her sick granddaughter, who lived with her. Under the Mississippi law, a marital, filial, or domestic obligation is specifically excluded as good cause for voluntary leaving, and the Board so held. No other facts and no other reasons for the decision were presented in this case.

*Good-cause-restricted State.* In a Minnesota case, the claimant, a laboratory worker in a potato-processing company, quit her job to stay home and care for her husband, who had become ill with cancer. She had worked full-time on a rotating shift, which would not permit following the doctor's recommendation that the household operate on a regular routine. The referee noted that the claimant did not inquire about working a regular shift; nor did she request a leave of absence instead of quitting. (The employer works 24 hours a day, so a straight shift might have been possible.) The referee concluded that the claimant left voluntarily for "a very good personal reason," but not a reason attributable to her employer. She was disqualified until she earned 4 times her weekly benefit amount.

*Unrestricted-good-cause State.* In a Hawaii case, the claimant, a machinist, assigned to the industrial relations office of the Pearl Harbor Naval Shipyard, quit to return to Oklahoma to care for his mother. The Mental Health Services of Southern Oklahoma stated that they have relied heavily on the claimant to help his mother, who was incapable of managing herself without his assistance. The claimant had a brother in the Marine Corps. No other relatives were available to assist in the mother's care. The referee noted that leaving work "is considered to be good cause where it is for a real, substantial, or compelling reason, or a reason which would cause a reasonable and prudent worker, genuinely and sincerely desirous of maintaining employment, to take similar action. Such a worker is expected to try reasonable alternatives to his problems before terminating his employment." Given the evidence, the referee found the claimant left voluntarily with good cause.

#### **Recent State Court Decisions on Constitutionality of Disqualifications**

This discussion would be incomplete without reference to recent decisions of two State courts on constitutional issues in disqualifications for quits to meet family obligations. The decisions are summarized below, and the complete decisions are in the Appendix. In both cases, claimants challenged the marital and domestic obliga-

tions provisions as a denial of equal protection of the laws and due process of law under the 14th amendment.

### The Boren case

In *Betty Ann Boren v. Department of Employment Development, et al.*, the California Court of Appeals for the Third District held on June 17, 1976, that despite its neutral language, section 1264 of the California Unemployment Insurance Code, which contains California's marital- and domestic-obligation provisions, constituted denial of equal protection because it established a disqualification based on sex not sustainable by compelling State interest.

The facts of the case were these: the claimant, the mother of four children, the youngest an infant, worked at a drive-in restaurant. The family was supported by her weekly wages and her husband's. When her employer required her to change work shift, she could not find a babysitter for her infant to cover the time of the new shift. When she told him she could not change, he replaced her. The State UI agency denied benefits because she left work for domestic reasons and was not the major provider of family support. Mrs. Boren appealed from the decisions of the agency and the UI Appeal Board, first to the Superior Court, then to the Court of Appeals.

In the course of its decision, the Court of Appeals accepted the statement that 99 percent of those disqualified in 1971 under section 1264 were women and that the proportion probably held true for succeeding years. In arriving at its decision that the provision deprives affected claimants of equal protection of the law, the court stated that Section 1264 distinguished between two kinds of UI claimants: those who left work voluntarily for domestic reasons and those who left voluntarily but for good cause of a different sort. The first is denied benefits, the second is eligible. A second distinction is created between persons who supply primary and secondary family support. Though both quit work for domestic reasons, the first may receive benefits, the second is barred by the statute from compensation. The court finally noted a third distinction, expressed in terms of the duration of the disqualification. A person who voluntarily quit for good cause and is ineligible but not disqualified still must pass the able-and-available test each week; persons disqualified under section 1264, however, are not eligible when they begin looking for a job, but must first regain bona fide employment.

After discussing the social patterns that historically have adversely affected the position of women in the labor market, the court then stated that the statute, which, unlike the historical patterns, has existed only since 1954, was intended to disqualify working wives. Because the provision established a sex-based disqualification, it was inherently suspect. "In the formula-

tion of State unemployment insurance systems," said the Court, "the States are not free to establish disqualifications which deprive persons of constitutionally protected rights." It drew a parallel between a case, in which the U.S. Supreme Court in 1975 had invalidated portions of the Utah pregnancy-disqualification provision, and section 1264, which burdened the "employed woman's decision to marry, to follow her husband to another locality or to leave work for childbirth or child care."

Finally, in commenting on the State's argument that the provision is needed to reduce expenditures of UI funds, the court pointed to other claimants whose unemployment is due to noneconomic causes and declared: "A State may not preserve the fiscal integrity of its programs by invidious distinctions between classes of citizens."

### The Wallace case

In *Alice Wallace v. Unemployment Compensation Board of Review*, the Commonwealth Court of Pennsylvania, on October 31, 1978, found "no rational basis whatsoever for the different treatment accorded domestic quit claimants."

The court found the following to be the facts in the case: The claimant, a nursing assistant at a Philadelphia hospital, worked the 3:30-p.m.-to-midnight shift. Her two older daughters moved away from home, leaving her without care for her two sons, 11 and 14, in the evening. She repeatedly requested the day shift, but no opening could be found for her. She finally resigned after diligent efforts to solve the problem failed.

The court adopted the reasoning in the claimant's argument—that first, "by effectively preventing persons who quit their jobs for domestic reasons from showing that their resignations were motivated by necessitous and compelling causes, whereas persons quitting their jobs for any other reason may so argue, the statute establishes a classification which bears no rational relationship to any legitimate State interest and hence violates the guarantee of equal protection."

The second argument relied on the U.S. Supreme Court landmark decisions in the *Turner* case and the *Laflaur* case. The latter held in 1972 that compulsory maternity leave for a schoolteacher during specified periods was a denial of equal protection. According to this argument, the Pennsylvania provision "creates an irrebuttable presumption that a domestic quit can never be for a necessitous and compelling reason." The presumption is not universally true, as shown by arguments and opinion in the Pennsylvania courts when the law did not absolutely disqualify domestic separation claimants. The landmark decision of Judge Reno in the *Sturdevant* case held in 1946 that "domestic circumstances can rise to the level of necessitous and com-

elling cause for a worker's decision to terminate employment."

The court rejected the Board's argument that the purpose of UI is served by disqualifying domestic quit claimants because their unemployment is not "sudden unemployment" as intended by the law. Domestic reasons for leaving can be as sudden as any other reasons. The court also rejected the Board's unsupported argument that the provision aids fraud prevention, since, according to the argument, claims "based on domestic circumstances are more easily fabricated."

The court declared:

In the absence of any rational relationship between the total disqualification of domestic quit claimants and some legitimate legislative purpose, the singling out of this group of claimants for separate treatment for no other apparent reason than that it is convenient to do so or that it will conserve the unemployment compensation fund is precisely the kind of patently arbitrary treatment which violates the constitutional mandate of equal protections of the laws, *Flemming v. Nestor*, 363 U.S. 603 (1960).

The possibility that some domestic quit claimants would be determined ineligible for benefits because the circumstances of their quitting, taken as a whole, are not found to be necessitous and compelling is not a rational basis for disqualifying all applicants, given the Law's remedial humanitarian purposes.

The court found denial of the opportunity to show necessitous and compelling cause "especially objectionable in light of the fact that the administrative mechanism for making such showings, viz., the hearings before the referee on the circumstances of the quit, already exists and is utilized in a great number of non-domestic related voluntary quit cases."

### Options for Recommendations by the NCUC

Repeal of family obligation disqualifications is very important to women and was recommended more than 15 years ago by the President's Commission on the Status of Women. Eleven of the 13 States that still have such provisions have the unrestricted-good-cause provision; therefore the reasons for leaving, in those States, would be examined for the reasonableness of the leaving, just as all other reasons for leaving are examined.

But in the 29 States that limit good cause to work-related causes, most marital-obligation quits would continue to be disqualifying, judging by the appeals cases reviewed in the course of preparing this report. In many of those States, the word *voluntary*, if it appears in connection with quits, is ignored by the decisions. If women are to get the protection of the sys-

tem when they need it, the work-connected limitation on good cause for quitting work will have to be removed or modified.

Four options are offered as possible recommendations by the NCUC:

*Option 1.* First, the Commission should suggest that a new Federal statute be added to the Federal Unemployment Tax Act (FUTA) that would prohibit States from restricting good cause to conditions connected with the work or attributable to the employer. This option would benefit not only claimants who quit for domestic considerations, but also those who leave for other personal reasons, which are now good cause in 23 States. It has the disadvantage of being federally imposed and would encounter strong opposition on this point.

*Option 2.* Second, a new Federal requirement could be added to the FUTA, requiring the elimination of special marital- and domestic-obligation disqualifications. This action would be comparable to the present Federal standard on pregnancy. It would mean that, in all States, the benefit rights of claimants—mostly women—who leave for family obligations would be determined by the same policies applied to others who quit work voluntarily. It is also a Federal standard, although a more limited one.

*Option 3.* Third, the NCUC could recommend that the Department of Labor develop, in consultation with the States, a Federal position on the interpretation of the word *voluntary* in the quit disqualification of most State laws. Reading a large number of appeals decisions leaves the impression that some States are ignoring this language and imposing "voluntary quit" disqualifications where the claimant's action was not voluntary. If these cases represent a policy, it could be regarded as a denial of benefits due under the law, within the meaning of present Federal requirements. This approach would not require legislation, either Federal or State. It does not represent a new standard. It would result in the payment of benefits to some of those now disqualified for leaving for family obligations, as well as to some others, such as those who leave a job because of personal illness. It would not change the requirement that benefits be paid only in weeks when the claimant is available for work.

*Option 4.* Finally, the NCUC could take a strong public position opposing the marital- and domestic-obligation disqualifications. This position would put the prestige of the Commission behind those who are working in the individual States for repeal of those provisions. It is not really an alternative to the other options. No matter what other action the Commission may take on this issue, a strong public position seems desirable.

## Notes

1. Attachment to prepared statement of W. Willard Wirtz, Secretary of Labor, in *Unemployment Insurance Amendments of 1966*, hearings before the Committee on Finance, U.S. Senate, 89th Cong., 2d Sess., on H.R. 15119, July 1966, p. 27.

2. Wilbur J. Cohen, "Some Major Policy Issues in Unemployment Insurance and General Assistance," in *Studies in Unemployment* (University of Michigan School of Social Work, Public Welfare Administration, prepared for the Special Committee on Unemployment Problems, U.S. Senate, 86th Cong., 2d Sess., 1960), p. 328. Attached to testimony before Subcommittee on Unemployment Compensation, Committee on Ways and Means, House of Representatives, 94th Cong., 1st Sess., 1975, p. 538.

3. "Trends in Disqualifications, 1935-55," *Employment Security Review*, August 1955, p. 41.

4. *Report of the Committee on Social Insurance and Taxes to the President's Commission on the Status of Women*, October 1963, p. 48.

5. *Report of the Task Force on Social Insurance and Taxes to the Citizens' Advisory Council on the Status of Women*, April 1968, p. 31.

6. Maryland has amended its law, effective July 1, 1979, to restrict good cause for voluntary leaving to causes "directly attributable to, arising from, or connected with the conditions of employment or actions of the employer."

## Appendix: The Boren Case (1976) and the Wallace Case (1978)

### BOREN v. CALIFORNIA DEPT. OF EMPLOYMENT DEVELOPMENT

59 Cal.App.3d 250

**Betty Ann BOREN, Individually and on behalf  
of all other persons similarly situated,  
Plaintiffs and Appellants,**

v.

**CALIFORNIA DEPARTMENT OF EMPLOYMENT  
DEVELOPMENT et al., Defendants and Respondents.**

Civ. 14138.

**Court of Appeal, Third District,  
June 17, 1976.**

Plaintiff brought action, purportedly as a class suit on behalf of herself and other women, for writ of mandate to compel unemployment insurance agency to set aside decision denying compensation and also for declaratory judgment of invalidity of a statute. The

Superior Court, Sacramento County, B. Abbott Goldberg, J., entered judgment adverse to plaintiff, and plaintiff appealed. The Court of Appeal held that notwithstanding its neutral language, unemployment insurance provision disqualifying any person leaving his or her job because of marital or domestic duties and who does not supply the family's major support is invalid as based upon an improper classification in violation of equal protection.

Judgment reversed and cause remanded with directions.

### 1. Constitutional Law ⇌ 224(1)

The equal protection clause of the Fourteenth Amendment denies states the power to erect arbitrary statutory classifications based upon sex. U.S.C.A.Const. Amend. 14.

### 2. Constitutional Law ⇌ 208(1, 3)

A statute establishing "suspect classifications" or trenching upon "fundamental interests" is vulnerable to strict judicial scrutiny; it may be sustained by a showing of a compelling state interest which necessitates the distinction; a sex-based classification is treated as suspect.

### 3. Constitutional Law ⇌ 208(1)

Discrimination may be demonstrated by statistics showing statute's actual operation.

### 4. Constitutional Law ⇌ 208(3)

A seemingly neutral statute which actually disqualifies a disproportionate number of one sex is discriminatory and vulnerable to the strict scrutiny test; it is enough if statistics show that the standard affects women only.

### 5. Evidence ⇌ 14

Court took judicial notice, as matter of common knowledge, that women are more likely than men to follow their spouses to a new job location and more likely to quit work to care for young children or an ill family member.

### 6. Constitutional Law ⇌ 224(1)

Statute which establishes a sex-based disqualification is inherently suspect as a denial of equal protection and it may be sustained only by a showing of its necessity for the fulfillment of a compelling state interest. U.S.C.A.Const. Amend. 14.

### 7. Social Security and Public Welfare ⇌ 261

In the formulation of state unemployment insurance systems, states are not free to establish disqualifications which deprive persons of constitutionally protected rights.

## 8. Constitutional Law ⇌ 274(2)

Freedom of personal choice in matters of marriage and family life is one of the liberties protected by the due process clause of the Fourteenth Amendment. U.S.C.A.Const. Amend. 14.

## 9. Constitutional Law ⇌ 255(2)

An employed woman's decision to marry, to follow her husband to another locality or to leave work for childbirth or child care, falls within ambit of Fourteenth Amendment liberties. U.S.C.A.Const. Amend. 14.

## 10. Constitutional Law ⇌ 208(1)

When a statutory classification is subject to strict scrutiny, state must do more than show that the exclusion saves money.

## 11. Constitutional Law ⇌ 242.3(3)

### Social Security and Public Welfare ⇌ 261

Notwithstanding its neutral language, unemployment insurance provision disqualifying any person leaving his or her job because of marital or domestic duties and who does not supply the family's major support is invalid as based upon an improper classification in violation of equal protection. West's Ann.Unempl.Ins. Code, § 1264; U.S.C.A.Const. Amend. 14.

Richard M. Pearl, Cal., Rural Legal Assistance, San Francisco, Charles F. Elssesser, Jr., Los Angeles, for plaintiffs and appellants.

Evelle J. Younger, Atty. Gen., by N. Eugene Hill and Edmund E. White, Deputy Attys. Gen., Sacramento, for defendants and respondents.

### BY THE COURT:

Plaintiff, a working wife and mother, was denied unemployment insurance compensation. She charges that the disqualification statute unconstitutionally discriminates against female workers. The statute, section 1264 of the California Unemployment Insurance Code, disqualifies any person leaving his or her job because of marital or domestic duties and who does not supply the family's major support.<sup>1</sup>

1. All statutory references in this opinion, unless otherwise noted, are to the Unemployment Insurance Code. Section 1264 of that code declares: "Notwithstanding any other provision of this division, an employee who leaves his or her employment to be married or to accompany his or her spouse to or join her or him at a place from which it is impractical to commute to such employment or whose marital or domestic duties cause him or her to resign from his or her employment shall not be eligible for unemployment insurance benefits for the duration of the ensuing period of unemployment and until he or she has secured bona fide employment subsequent to the date of such voluntary leaving; provided that, notwithstanding any other provision of this division, this section shall apply only to claims for unemployment compensation benefits and shall not apply to claims for unemployment compensation disability benefits. The provisions of this section shall not be applicable if the individual at the time of such voluntary leaving was and at the time of filing a claim for benefits is the sole or major support of his or her family."

The plaintiff is Betty Ann Boren, who worked at a drive-in restaurant. Mrs. Boren had four children, the youngest an infant. Her weekly wage, combined with her husband's earnings, provided the family's support. Her employer required her to change her work shift; she could not find a baby sitter to care for her infant during the proposed new shift; when she told her employer she could not work the new shift, he replaced her.

The unemployment insurance agency rejected Mrs. Boren's claim for unemployment compensation on the ground that she had left her job "for domestic reasons" and was not the major source of family support. After exhausting her administrative appeals, Mrs. Boren filed this action, purportedly as a class suit on behalf of herself and other women. She requested a writ of mandate to compel the unemployment insurance agency to set aside its decision denying compensation and also sought a declaratory judgment of the statute's unconstitutionality. Her thesis was that section 1264, notwithstanding its neutral language, unconstitutionally discriminated against female applicants for unemployment compensation. The superior court sustained the state's demurrer with leave to amend. Plaintiff elected to stand on her pleading. She appeals from the adverse judgment.

Literally, section 1264 disqualifies an employee who leaves or resigns. Here, Mrs. Boren's employer replaced her when her domestic needs prevented her from accepting a new work shift. She makes no point that she did not actually resign. Counsel on both sides assume that an employee effectively resigns by rejecting the employer's reasonable work conditions. We accept that assumption.<sup>2</sup>

Like other state systems, the California unemployment insurance program is designed primarily for those who are unemployed because of lack of work and who are genuinely in the labor market. Section 100 describes the system as one providing benefits for persons unemployed "through no fault of their own." The primary focus on economically caused unemployment is expressed by provisions disqualifying an applicant who left his work "voluntarily without good cause" or had been "discharged for misconduct connected with his most recent work." (§ 1256; see, however, *Prescod v. Unemployment Insurance Appeals Bd.* (1976) 57 Cal.App.3d 29, 40, 127 Cal.Rptr. 540.) The system's restriction to claimants genuinely in the labor market is implemented by confining eligibility to the claimant "able to work and available for work for that week"

2. Section 1264 refers variously to an individual "who leaves his or her employment," to one whose marital or domestic duties cause the individual to "resign" and to the individual who was the major breadwinner "at the time of such voluntary leaving." The Unemployment Insurance Appeals Board has concluded that these three phrases are synonymous. (In the Matter of Sherry M. Pratt, Precedent Benefit Decision No. P-B-131, dated Feb. 24, 1972.)

and who has "conducted a search for suitable work in accordance with specific and reasonable instructions of a public employment office." (§ 1253, subds. (c), (c).)

Section 1264, the provision under attack, imposes a disqualification resembling that for voluntary terminations without good cause. It denies eligibility to a supplementary breadwinner who leaves in order to marry or to join a distant spouse or who quits because of "marital or domestic duties." An important feature of section 1264 perpetuates the disqualification throughout the ensuing period of unemployment and until the individual has secured a new job. The statute is framed in neuter terms, applying literally to men and women alike.

In challenge to the statute's surface avoidance of gender references, Mrs. Boren's petition alleges: "Due to cultural role patterns and a past history of discrimination women in our society bear a disproportionate share of the domestic duties and are significantly less able to contribute to the support of their families than their male counterparts. Thus the disqualification from provisions of . . . § 1264 operates almost solely against women, as evidenced by the fact that in 1971 ninety-nine percent (99%) of the claimants declared ineligible for unemployment insurance under § 1264 were women."

The state's demurrer provisionally admits the plaintiff's factual claims. Thus for the purpose of this decision, we accept the truth of the allegation that 99% of the persons disqualified under section 1264 in 1971 were women. In the absence of challenge by the state, it is justifiable to assume that the 1971 statistic also characterizes later years.<sup>3</sup>

At oral argument we inquired whether the unemployment insurance agency construed section 1264 to disqualify a pregnant woman who left her job because she did not wish to work during the remaining months of her pregnancy. The answer was affirmative. The Unemployment Insurance Appeals Board holds that the "domestic duties" clause of section 1264 applies to a woman who leaves her work because of pregnancy. (*Matter of Sherry Pratt*, supra; see, however, section 1264.2.)

Appellant charges section 1264 with a number of constitutional infirmities—that it classifies unemployment insurance applicants by sex, thus colliding with title VII of the federal Civil Rights Act of 1964 (42 U.S.C. § 2000e et seq.) and offending the supremacy clause of the Federal Constitution; that it denies female

claimants equal protection of the laws and due process of law in violation of the Fourteenth Amendment. The statute does indeed deprive affected claimants of equal protection of the laws. Other claims of invalidity need not be analyzed.

[1,2] The equal protection clause of the Fourteenth Amendment denies the states the power to erect arbitrary statutory classifications based upon sex. (*Reed v. Reed* (1971) 404 U.S. 71, 75–76, 92 S.Ct. 251, 30 L.Ed.2d 225.) According to California decisional law, a statute establishing "suspect classifications" or trenching upon "fundamental interests" is vulnerable to strict judicial scrutiny; it may be sustained by a showing of a compelling state interest which necessitates the distinction; a sex-based classification is treated as suspect. (*Sail'er Inn, Inc. v. Kirby* (1971) 5 Cal.3d 1, 16–20, 95 Cal.Rptr. 329, 485 P.2d 529. See also, *Frontiero v. Richardson* (1973) 411 U.S. 677, 682–683, 93 S.Ct. 1764, 36 L.Ed.2d 583 (plurality opinion).) We are of course bound by the established California rule.

The state argues that section 1264 is devoid of any gender classification; that it affects male and female employees alike; that it draws a line only between those who remain at work and those who leave their jobs for domestic reasons; that social and cultural patterns, not the statute, force women rather than men to leave work for the sake of domestic needs; that any inferiority of treatment arises from these social patterns, not from the statute. Moreover, according to the argument, the unemployment insurance system is designed primarily for those unemployed through lack of work; the legislature may reinforce that objective by withholding subsidies from those who resign to take care of their families.

Contrary to the state's thesis, section 1264 does not draw a line between those who remain at work and those who leave work for domestic reasons. Instead, it draws a line between several kinds of unemployment insurance claimants. It draws a line between a claimant who left work voluntarily for domestic reasons and one who left work voluntarily but for good cause of another sort.<sup>4</sup> The former is barred from compensation, the latter eligible.

Section 1264 creates a second classification, differentiating between persons providing primary and secondary family support. Even though the individual quit work for domestic reasons, the primary breadwinner is immune from the statutory bar, the secondary breadwinner vulnerable to it.

3. An exhibit attached to the petition displays statistics attributed to the Research Division of the Department of Human Resources Development (since re-named Department of Employment Development). In 1971, section 1264 supplied the basis for rejection of 15,749 claims, 99% of which had been filed by females. Projected into 1972, this statistic forecast 15,500 denials, 99.5% of them affecting female applicants. The state does not gainsay these statistics.

4. See *Perales v. Dept. of Human Resources Development* (1973) 32 Cal.App.3d 332, 336–337, 108 Cal.Rptr. 167. Under California law legitimate personal reasons may supply good cause for a voluntary resignation, thus warding off the "voluntary quit" disqualification. See *Syrck v. California Unemployment Ins. Appeals Bd.* (1960) 54 Cal.2d 519, 529, 7 Cal.Rptr. 97, 354 P.2d 625; *Bunny's Waffle Shop v. California Employment Com.* (1944) 24 Cal.2d 735, 743, 151 P.2d 224; *Prescod v. Unemployment Insurance Appeals Bd.*, supra, 57 Cal.App.3d at pp. 40–41, 127 Cal.Rptr. 126.

Finally, the statute establishes a third classification, expressed in terms of the disqualification's duration. A person who quits voluntarily but for good cause must nevertheless pass the test of "able and available for work" during any week for which he seeks benefits (§ 1253). A person disqualified under section 1264 is not restored to eligibility upon returning to the labor market, for section 1264 prolongs the disqualification until the person regains bona fide employment.

[3, 4] In measuring these classifications against the equal protection clause, the court deals not so much with the statute's neutral language as with its practical impact. Its ultimate effect is the criterion of equal treatment. (*Reitman v. Mulkey* (1967) 387 U.S. 369, 373, 87 S.Ct. 1627, 18 L.Ed.2d 830, *Mulkey v. Reitman* (1936) 64 Cal.2d 529, 534, 50 Cal.Rptr. 881, 413 P.2d 825.) The courts must inquire into the statute's actual purposes. (*Weinberger v. Weisenfeld* (1975) 420 U.S. 636, 648, 95 S.Ct. 1225, 43 L.Ed.2d 514.) Discrimination may be demonstrated by statistics showing the statute's actual operation. (See *Hernandez v. Texas* (1953) 347 U.S. 475, 74 S.Ct. 667, 98 L.Ed. 866, *Chance v. Board of Examiners* (1972) 458 F.2d 1167.) A seemingly neutral statute which actually disqualifies a disproportionate number of one sex is discriminatory and vulnerable to the strict scrutiny test; it is enough if statistics show that the standard affects women only. (*Hardy v. Stumpf* (1974) 37 Cal.App.3d 958, 962, 964, 112 Cal.Rptr. 739.)

The parties correctly appraise the cultural-social conditions which cast working wives, rather than working husbands, in the role of secondary breadwinners; which impel working wives, rather than working husbands, to leave work for family reasons. "Obviously, the notion that men are more like[ly] than women to be the primary supporters of their spouses and children is not entirely without empirical support." (*Weinberger v. Weisenfeld*, supra, 420 U.S. at p. 645, 95 S.Ct. at p. 1231.) According to the 1975 Handbook On Women Workers,<sup>5</sup> the proportion of married women in the labor force rose from 15% in 1940 to 43% in 1974 (p. 17). In 1974 working couples represented about two-fifths of all married couples in the population; of the 20.4 million married women in the labor force in 1974, about 18.8 million had husbands who were also in the labor force. (*Id.* p. 22.) Of mothers with children under 18, 13.6 million, or 46%, were in the 1974 labor force. (*Id.* p. 25.) An inverse trend accompanies increased feminine participation in the nation's work force. Median earnings of women were 63% of median earnings of men in 1956, but only 57% of men's earnings in 1973. (*Id.* p. 131.) Wives who worked year-round, full-time in 1973 had earnings which accounted for 38% of family income. (*Id.* p. 139.) Obversely, the husbands of working wives contributed 62% of family

income. As a general rule then, husbands are the primary breadwinners, working wives the secondary breadwinners.

Note should be taken of employed women who do not have working husbands. About 6.6 million families (12% of all American families) were headed by women in 1973. (*Id.* pp. 139-140.) Obviously there are some families in which the woman's earnings supply the sole or major support.

[5] Commentators describe related demographic developments, such as the trend toward smaller families, a shortened reproductive span for women and intensifying demand for women workers. (Law and the American Future (Schwartz, ed., The American Assembly, 1976) pp. 58-59; Hayghe, *Families and the Rights of Working Wives—an Overview*, Monthly Labor Review (May 1976) pp. 12, 14.) Nevertheless, certain traditional modes survive. We take judicial notice, as a matter of common knowledge, that women are more likely than men to follow their spouses to a new job location, more likely to quit work to care for young children or an ill family member. Sheer economic need perpetuates vestigial tradition—the family can better afford to dispense with the earnings of the lesser-paid wife than those of the higher-paid husband.

Contrary to the state's argument, it is the statute, not these social patterns, which centers its adverse effect upon female claimants for unemployment insurance. The social patterns long antedated the statute, which originated in 1953. The statute's effect was obvious to its authors. Its disqualification would fall primarily and almost exclusively upon working wives. To argue that it was not designed to accomplish its obvious result is unrealistic. Section 1264 was designed to disqualify a selected group of female claimants.

That section 1264 does not disqualify all females who leave work for domestic reasons does not dilute the sexual basis of the classification. A female who is the head of the family and primary provider of its support is immune from the disqualification. Section 1264 divides claimants into two groups—members of both sexes who provide primary family support and females who provide secondary support. Members of the first group who leave jobs for domestic reasons are ineligible only while their domestic needs keep them off the labor market. Members of the second group, essentially entirely female, are not restored to eligibility by return to the labor market; rather, the statute prolongs their ineligibility until they have secured new employment. Section 1264 imposes an augmented penalty when familial needs (as contrasted with other kinds of good cause) impel a working wife's job termination.

[6] The intended effect of section 1264 is the disqualification of a group of female claimants and the prolongation of their disqualification past that of other claimants. Because it establishes a sex-based disqualification, the statute is inherently suspect as a denial of

5. Bulletin 297, U.S. Dept. of Labor, Employment Standards Administration, Women's Bureau.

equal protection. It may be sustained only by a showing of its necessity for the fulfillment of a compelling state interest.

[7, 8] Section 1264 is vulnerable to strict scrutiny for the added reason that it trenches upon fundamental liberties. In the formulation of state unemployment insurance systems, the states are not free to establish disqualifications which deprive persons of constitutionally protected rights. (See, for example, *Turner v. Department of Employment Security* (1975) 423 U.S. 44, 96 S.Ct. 249, 46 L.Ed.2d 181; *Sherbert v. Verner* (1963) 374 U.S. 398, 83 S.Ct. 1790, 10 L.Ed.2d 925.) Freedom of personal choice in matters of marriage and family life is one of the liberties protected by the due process clause of the Fourteenth Amendment. (*Cleveland Board of Education v. La Fleur* (1974) 414 U.S. 632, 639, 94 S.Ct. 791, 39 L.Ed.2d 52.) For example, a conclusive presumption of incapacity for employment imposed upon a pregnant woman for a fixed period before and after childbirth interferes with a basic human liberty; the state must achieve legitimate state ends through more individualized means when basic human liberties are at stake; the conclusive presumption unduly penalizes the exercise of a basic liberty and denies due process. (*Turner v. Department of Employment Security*, supra, 423 U.S. at p. 46, 96 S.Ct. at p. 251, 46 L.Ed.2d at p. 184; *Cleveland Board of Education v. La Fleur*, supra, 414 U.S. at pp. 644, 646, 94 S.Ct. 791.)

[9] Section 1264 of the California Unemployment Insurance Code similarly impinges upon constitutionally protected interests. An employed woman's decision to marry, to follow her husband to another locality or to leave work for childbirth or child care, falls within the ambit of Fourteenth Amendment liberties. Because familial circumstances supply the motivation for her job termination, section 1264 treats her differently than claimants who have quit for other kinds of good cause<sup>6</sup> or who are not "able and available" for other reasons. The latter become eligible by remaining in the labor market or returning to it. Section 1264 imposes a harsher penalty, prolonging the claimant's disqualification until she finds a new job. The statute thus discriminates against women who leave their jobs for domestic reasons as compared with those who leave their jobs for other kinds of good cause. The statute trenches upon personal choices concerning marriage and family life. For this reason too, it is subject to strict scrutiny.

We have examined our conclusion in the light of

6. An example is presented by the female claimant in *Prescod v. Unemployment Insurance Appeals Board*, supra, 57 Cal. App.3d 39, 127 Cal.Rptr. 540. Having left her work voluntarily but for good cause of a non-domestic sort, she possessed or regained eligibility by being "able and available" for a new job. Had family needs been her motive for quitting, she would have remained ineligible for benefits throughout the ensuing period of unemployment.

two federal Supreme Court decisions. The first, *Geduldig v. Aiello* (1974) 417 U.S. 484, 94 S.Ct. 2485, 41 L.Ed.2d 256, sustained the exclusion of pregnancy as a compensable disability under a state disability unemployment insurance system. A majority of the court held that the exclusion was only a choice of compensable disabilities, not an exclusion of females; that the state had a legitimate interest in maintaining the self-supporting character of its disability program. In contrast is *Weinberger v. Weisenfeld*, supra, 420 U.S. 463, 95 S.Ct. 1225, 43 L.Ed.2d 514, invalidating a provision of the Social Security Act which granted survivors' benefits to widows but denied them to widowers. The court held that the classification was gender-based and "entirely irrational." (420 U.S. at p. 651, 95 S.Ct. 1225.)

Suffice it to say that neither decision tested the statute by the strict scrutiny and compelling interest criteria required by California law. (*Sail'er Inn v. Kirby*, supra.)

In support of the statutory classification, the state demonstrates some legitimate policy choices but no compelling governmental interest. Section 1264 cannot be viewed as a means of preventing subsidies to women who are occupied with family care. So long as family necessities keep the claimant off the labor market, she is disqualified by the "able and available" requirement of section 1253.

[10, 11] The statute serves to aid the unemployment insurance system's focus on economically caused unemployment. It doubtless reduces expenditures of unemployment insurance funds. As we have observed, the system does not bar certain other claimants whose unemployment stems from non-economic causes. (See fn. 4, supra.) A state may not preserve the fiscal integrity of its programs by invidious distinctions between classes of citizens. (*Shapiro v. Thompson* (1969) 394 U.S. 618, 633, 89 S.Ct. 1322, 22 L.Ed.2d 600.) When a statutory classification is subject to strict scrutiny, the state must do more than show that the exclusion saves money. (*Memorial Hospital v. Maricopa County* (1974) 415 U.S. 250, 263, 94 S.Ct. 1076, 39 L.Ed.2d 306.) No compelling state interest protects section 1264 from invalidity as a denial of equal protection. The statute is a nullity.

The trial court erred in sustaining the state's general demurrer. Whatever may have been plaintiff's ability and availability for work during the period for which she sought benefits, she was entitled to a judgment nullifying the disqualification imposed under section 1264 and declaring that statute's nullity. The parties have not debated, nor do we decide, whether the action may be maintained as a representative suit.

The judgment is reversed and the cause remanded to the trial court with a direction to enter a judgment for plaintiff consistent with this opinion.

IN THE COMMONWEALTH COURT  
OF  
PENNSYLVANIA

ALICE WALLACE, Petitioner  
v. NO. 1643 C.D. 1976  
COMMONWEALTH OF PENNSYLVANIA,  
UNEMPLOYMENT COMPENSATION  
BOARD OF REVIEW, Respondent

Appeal from the Decision of the Unemployment  
Compensation Board of Review at Appeal Num-  
ber B-76-1-M-17; Decision Number B-134227;  
Social Security Number 300-30-9117.

BEFORE:

HONORABLE JAMES S. BOWMAN, President  
Judge  
HONORABLE JAMES C. CRUMLISH, JR., Judge  
HONORABLE ROY WILKINSON, JR., Judge  
HONORABLE GLENN E. MENCER, Judge  
HONORABLE THEODORE O. ROGERS, Judge  
HONORABLE GENEVIEVE BLATT, Judge  
HONORABLE RICHARD DiSALLE, Judge

ARGUED: April 4, 1978

OPINION

Opinion by Judge Crumlish, Jr.

Filed: October 31, 1978

Unemployment compensation claimant Alice Wallace (Claimant) has appealed the decision of the Unemployment Compensation Board of Review (Board) affirming a referee's denial of benefits following her voluntary termination of her employment under Section 402(b) of the Unemployment Compensation Law (Law).<sup>1</sup> The case challenges the validity, under the Equal Protection and Due Process Clauses of the United States Constitution, of the blanket disqualification effected by Subsection (b)(2)(II) of Section 402, 43 P.S. § 802, of all persons who quit their jobs for marital, filial or domestic reasons.

Claimant was employed as a nursing assistant at Misericordia Hospital in Philadelphia, working the middle shift, from 3:30 P.M. to 12 o'clock midnight. When her two older daughters moved away from home, she was faced with the need to provide care for her two sons, aged 11 and 14 years, during the evening. Unwilling to leave her job, she repeatedly requested a transfer to the day shift (7:30 A.M. to 3:30 P.M.) but no opening on that shift could be found for her. Unable, after diligent search, to find someone to care for the children, she reluctantly resigned.

The unemployment compensation authorities' treatment of the case points up the very equal protection and due process problems lying at the heart of this appeal. The Bureau of Employment Security and the referee analyzed Claimant's application for benefits in terms of Section 402(b)(1) and, after considering the reasons for her resignation, found that those reasons did not constitute the "cause of a necessitous and compelling nature" which Section 402(b)(1) requires in order for an employee who voluntarily terminates his employment to be eligible for benefits. The Board, however, analyzed the case under Section 402(b)(2)(II), which disqualifies all persons who quit for domestic reasons *regardless* of good cause considerations and, again, denied benefits to her.<sup>2</sup>

Claimant's argument is two-pronged. First, she contends that by effectively preventing persons who quit their jobs for domestic reasons from showing that their resignations were motivated by necessitous and compelling causes, whereas persons quitting their jobs for any other reason may so argue, the statute establishes a classification which bears no rational relationship to any legitimate state interest and hence violates the guarantee of equal protection. Second, relying on *Turner v. Department of Employment Security*, 423 U.S. 44 (1975), and *Cleveland Board of Education v. LaFleur*, 414 U.S. 632 (1972), she maintains that Section 402(b)(2)(II) creates an irrebuttable presumption that a domestic quit can never be for a necessitous and compelling reason—a presumption which, she alleges, is not universally and necessarily true and which, therefore, is offensive to the Due Process Clause which disapproves such presumptions and mandates that they be drawn as narrowly as possible.

To support her argument that the presumption is not universally true, Claimant points to the opinions of the Superior and Supreme Courts during those periods when the Law did not contain the absolute disqualification of all domestic termination employees<sup>3</sup>—cases in which Judges, led by Judge Reno in his landmark decision in *Sturdevant Unemployment Compensation Case*, 158 Pa. Superior Ct. 548, 45 A.2d 898 (1946), held that domestic circumstances can rise to the level of necessitous and compelling cause for a worker's decision to terminate employment.

This Court has never ruled on the specific equal protection and due process arguments raised by this appeal, although we have decided related issues in *Gilman v. Unemployment Compensation Board of Review*, 28 Pa. Commonwealth Ct. 630, 369 A.2d 895 (1977), and *Unemployment Compensation Board of Review v. Jenkins*, 23 Pa. Commonwealth Ct. 127, 350 A.2d 447 (1976). In *Gilman* we held that the classification in Section 402(b)(2)'s proviso, whereby principal wage earners would receive compensation but non-principal wage earners would not, bears a rational relationship to the legitimate goal of compensating the

severest instances of economic disruption following unemployment. We did not reach the issue of whether an arbitrary system of discrimination resulted from the operation of Section 402(b)(2)(II) vis-à-vis Section 402(b)(1). In *Jenkins*, we rejected an equal protection challenge based upon the contention that Section 402(b)(2)(II) and Section 402(a) interacted so as to treat differently those who *leave* work for domestic reasons and those who *refuse an offer* to work for these reasons. The claimant there did not present, and we consequently did not consider, the possibility of the equal protection problem posed by the case at bar.

Our analysis begins with the axiomatic premise that there is a strong presumption in favor of the constitutionality of an act of the legislature and the burden lies heavily upon one challenging the act to show that it clearly, plainly and palpably violated the Constitution. This means that in the context of an economic benefits statute such as an unemployment compensation act, which does not involve a fundamental right, a classification established by the statute which, as here, is not inherently suspect will pass muster under the Equal Protection Clause if it bears *some* rational relationship to the legitimate purpose of the legislation. *Gilman v. Unemployment Compensation Board of Review*, *supra*, 28 Pa. Commonwealth Ct. at 634–635, 369 A.2d at 897. The same level of scrutiny is applied in the due process analysis so that where no fundamental right is involved, the presence of *some* rational justification in an Act's legislative purpose will suffice to protect a statutorily created conclusive presumption from effective constitutional attack. *Weinberger v. Salfi*, 422 U.S. 749 (1975).

We have studied the briefs of the parties and the cases decided at the various stages in the convoluted history of Section 402(b) and can perceive no rational basis whatsoever for the different treatment accorded domestic quit claimants. As we emphasized in *Gilman*, the purpose of the Unemployment Compensation Law is to relieve workers who become unemployed through no fault of their own of the hardship flowing from the loss of employment. We find no merit in the Board's contention that that purpose is served by disqualifying domestic quit claimants because their unemployment is not "sudden unemployment" and that it is only such sudden unemployment which the Law was intended to compensate.<sup>4</sup> First, nothing in logic or experience dictates that domestic causes for terminating employment arise any less suddenly, or with any less urgency, than the many other causes of voluntary termination which are afforded the benefit of good cause analysis under Section 402(b)(1), e.g., harassment on the job, *Palmitessa Unemployment Compensation Case*, 197 Pa. Superior Ct. 618, 179 A.2d 679 (1962); mental stress brought on by co-workers' actions, *Trinovitch Unemployment Compensation Case*, 169 Pa. Superior Ct. 269, 82 A.2d 277 (1951); dangerous working condi-

tions, *Myers Unemployment Compensation Case*, 164 Pa. Superior Ct. 150, 63 A.2d 371 (1949); discrimination, *Woodson v. Unemployment Compensation Board of Review*, 461 Pa. 439, 336 A.2d 867 (1975); health reasons, *Southerland Unemployment Compensation Case*, 202 Pa. Superior Ct. 149, 195 A.2d 138 (1963); or illegal recording of telephone calls, *Zinman v. Unemployment Compensation Board of Review*, 8 Pa. Commonwealth Ct. 649, 305 A.2d 380 (1973).

Even should the suddenness of the cause of termination, or the absence thereof, be a valid consideration in deciding whether to grant or deny benefits, that factor can and should be considered with all the other attending circumstances under the necessitous and compelling cause criterion of Section 402(b)(1).

We likewise reject the Board's argument—offered without any supporting authority or extended discussion—that claims of necessity based on domestic circumstances are more easily fabricated and that therefore blanket denial of these claims is rationally justified by the goal of preventing fraud. We are not persuaded that, in a system which places the burden of proving all the elements of entitlement to benefits upon the claimant and which places in the Commonwealth's referees the authority to determine the claimant's veracity and the weight of the evidence, the opportunities for falsification are any greater in the case of a domestic quit claimant than they are where a claimant quits because of, for example, alleged harassment, *Palmitessa Unemployment Compensation Case*, *supra*; mental stress, *Trinovitch Unemployment Compensation Case*, *supra*; or health reasons, *Southerland Unemployment Compensation Case*, *supra*.

In the absence of any rational relationship between the total disqualification of domestic quit claimants and some legitimate legislative purpose, the singling out of this group of claimants for separate treatment for no other apparent reason than that it is convenient to do so or that it will conserve the unemployment compensation fund is precisely the kind of patently arbitrary treatment which violates the constitutional mandate of equal protections of the laws, *Flemming v. Nestor*, 363 U.S. 603 (1960).

The possibility that some domestic quit claimants would be determined ineligible for benefits because the circumstances of their quitting, taken as a whole, are not found to be necessitous and compelling is not a rational basis for disqualifying all applicants, given the Law's remedial humanitarian purposes. The denial to domestic quit claimants of the opportunity to show necessitous and compelling cause for termination is especially objectionable in light of the fact that the administrative mechanism for making such showings, viz, the hearings before the referee on the circumstances of the quit, already exists and is utilized in a great number of non-domestic related voluntary quit cases. Even where the cause of unemployment is clearly

domestic in nature, other perceptible issues in the case often require a referee to take detailed testimony from the claimant relative to the circumstances of his leaving work to determine, for example, the often close question of whether the claimant quit or was fired or laid off and then offered another position by his employer, which the claimant refused because he considered it unsuitable. *See, e.g., Spotts Unemployment Compensation Case*, 176 Pa. Superior Ct. 484, 109 A.2d 212 (1954). Therefore, requiring domestic quit claims to proceed under Section 402(b)(1) would rarely result in the holding of additional hearings or even a substantial increase in the length of hearings, but would merely enlarge the scope of the referee's and the Board's analysis. Such additional analysis would impose no significant burden on the unemployment compensation appeal system. The referee and Board presently apply the necessitous and compelling cause standard to a host of voluntary termination cases; they applied it to domestic quit cases during the years when Section 402(b)(2)(II)'s blanket ineligibility provision was not part of the Law, and the referee even applied it in this case, apparently considering it as easy a task to rule under one section as under the other. The need for individualized determinations of claimants' entitlement to benefits, thereby fulfilling the purpose of the Law, so clearly outweighs the slight administrative convenience of treating an entire category of claimants under a conclusive presumption that to deny them individualized treatment is to deny them the due process of law guaranteed by the Constitution.

Because the absolute disqualification by Section 402(b)(2)(II) of all unemployment compensation claimants who voluntarily terminate their employment for marital, filial or domestic reasons bears no rational relationship to a legitimate legislative purpose, it violates the Equal Protection Clause of the United States Constitution; because it denies such claimants individualized determinations of their entitlement to a significant property right when the administrative inconvenience of providing such determinations is negligible, it violates the Due Process Clause. Accordingly, the section's disqualification may not be utilized by the unemployment compensation authorities in determining eligibility. The eligibility for unemployment compensation of applicants who terminate their employment for marital, filial or domestic reasons must be determined under Section 402(b)(1); that is, each claimant must be afforded the opportunity to demonstrate that his termination was for a necessitous and compelling nature.

Accordingly, we

#### ORDER

AND NOW, this 31st day of October, 1978, the decision of the Unemployment Compensation Board of Review denying benefits to Alice Wallace is reversed.

The case is remanded to the Board for a redetermination of eligibility under Section 402(b)(1) of the Unemployment Compensation Law.

James C. Crumlsh, Jr., Judge

Judge DiSalle concurs in the result only.

#### Footnotes

1. Act of December 5, 1936, Second Ex. Sess., P.L. (1937) 2897, *as amended*, 43 P.S. § 802(b).

2. Section 402(b)(2)(II) states:

"An employee shall be ineligible for compensation for any week—

" . . . .

"(2) In which his or her unemployment is due to leaving work (I) to accompany or to join his or her spouse in a new locality, or (II) because of a marital, filial or other domestic obligation or circumstance, whether or not such work is in 'employment' as defined in this act: Provided, however, That the provisions of this subsection (2) shall not be applicable if the employee during a substantial part of the six months either prior to such leaving or the time of filing either an application or claim for benefits was the sole or major support of his or her family, and such work is not within a reasonable commuting distance from the new locality to which the employee has moved."

3. *See Hamilton Unemployment Compensation Case*, 172 Pa. Superior Ct. 413, 94 A.2d 63 (1953); *Mooney Unemployment Compensation Case*, 162 Pa. Superior Ct. 183, 56 A.2d 386 (1948). For a history of the domestic quit disqualification, *see* Justice Musmanno's opinion in *Savage Unemployment Compensation Case*, 401 Pa. 501, 165 A.2d 374 (1960), and our opinion in *Crumbling v. Unemployment Compensation Board of Review*, 14 Pa. Commonwealth Ct. 546, 322 A.2d 746 (1974).

4. The Board cites certain language in our opinion in *Jenkins v. Unemployment Compensation Board of Review*, *supra*, in support of this proposition. A close reading of *Jenkins* reveals that the language was not essential to the decision, which turned on the distinction between a termination of employment and a refusal of suitable employment, and was therefore dicta. We now specifically disapprove that language.

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# The Issue of Part-Time Employment

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An important and growing part of the labor force consists of the workers who for personal reasons work less than 35 hours a week. These voluntary part-time workers fill a real business need. In turn, the jobs fill a real income need for almost 15 million workers who are unable to work full time because of family responsibilities, school attendance, or health.

Voluntary part-time workers are neither seasonal nor occasional workers. The average voluntary part-time worker works about 18 hours a week for more than 26 weeks in the year. About one-third of them work all year round. Most work in jobs covered by the unemployment insurance (UI) laws, and their employers pay State and Federal UI taxes on their wages. But in most States the worker is barred from the protection of the UI system because of the way in which the availability requirement is applied. Only a few laws flatly state that a claimant must be available for full-time work; most restrictive applications are a result of administrative interpretation. Some interpretations require availability for full-time work, and others go further and consider a person unavailable if unwilling or unable to accept a job at any time. This latter interpretation also excludes many full-time workers.

There are a few States whose administrative interpretations of availability allow people to limit when they work, provided that, in spite of those limitations, there is a substantial market for their services. In some cases that administrative interpretation was adopted as a result of court decisions.

Part-time workers are those who work regularly for less than the customary full-time hours prevailing for similar work in their establishment. Statistically, a part-time worker works from 1 to 34 hours a week. Some individuals work part time because they have been unable to find full-time work. This group presents no UI problems.

The majority of part-time workers, however, are those who for personal reasons—such as family responsibilities, health, or school attendance—are unable or unwilling to work full time.

The problems of part-time workers are more serious for women than for men. Of every 20 voluntary part-time workers, 11 are women, 4 are men, and 5 are teen-

agers. Furthermore, a larger proportion of working women than working men are part-time workers. About 33 percent of all the women who worked in 1977 were part-time workers, compared with about 15 percent of the men. Probably the chief reason behind the exclusion of part-timers and the lack of interest in dealing with the situation has been the perception that most of these workers are married women whose attachment to the labor force is tenuous. Because of changing circumstances and social attitudes, the attachment of married women to the labor force is less an issue now than it was in earlier decades of the UI program. Yet the issue of attachment still proves a barrier for many women in getting the protection merited by their regular contribution to the labor force.

Most part-time workers work out of financial necessity, and they meet an increasing need in the economy. The UI program can no longer brush aside the issue of appropriate treatment of part-time workers.

## Voluntary Part-Time Workers in the Labor Force

In May 1954 there were 48 million wage and salary workers in nonagricultural industries, and 15 percent of them were working part time. By May 1977 the labor force had grown to 79.8 million, and the part-timers to 22 percent, or about 17 million. The proportion working part time for voluntary reasons increased from 8 percent to about 14 percent. About two-thirds of the increase was accounted for by women.

Much of the increase in part-time employment has been inspired by the growth of the service-producing industries, which typically use more voluntary part-time workers than the goods-producing industries. Services'

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share of total employment rose from about 61 percent in 1968 to 68 percent in 1977. In May 1977 about 90 percent of all voluntary part-time workers were in the service industries.

The average part-timer earns less per hour than a full-time worker, primarily because part-time workers are in lower-paid sectors. One study found that two-thirds of the wage gap was due to the concentration of part-timers in poorly paid sectors of UI coverage, such as retail and wholesale trade.<sup>1</sup>

Part-time workers also tend to receive fewer pay increases for years of work than full-time workers: an extra year increases the full-time worker's wage by 2 percent, the part-time worker's by only 0.7 percent.

In a study that used the National Longitudinal Survey data, unemployment was consistently lower for part-time workers than for full-time workers. The evidence on how often and how long workers were unemployed was not conclusive but suggested that part-time workers might be unemployed for shorter spells.<sup>2</sup>

From an industry and employer viewpoint, permanent part-time jobs serve a number of employer needs. They are found in all occupations, but the extent of their use varies widely among industries. Fewer than 1 percent of railroad, mining, and manufacturing employees are voluntary part-time workers; the figure in clerical occupations is about 18 percent.

"Part time employment of a significant magnitude is an inherent characteristic of a dynamic economy and an economy in which personal services are an important part of final demand."<sup>3</sup>

Part-timers fill a special need in industries where there are predictable variations in business over the day or week, or where the business week is not limited to the 8-hour-day, 5-day-week pattern. Part-timers are used to back up full-time staff during peak hours or to provide staff for evening and weekend operations. They serve in a wide range of jobs—nurses, waitresses, bartenders, cashiers, bookkeepers, and retail sales clerks, to name just a few. Nursing is one of the few professions in which part-time work is readily available.

More than half of Sears, Roebuck and Company's 400,000 employees are part-time workers. They are included in the company's pension and profit-sharing plans and are eligible for its life and long-term disability insurance program.

The Massachusetts Mutual Life Insurance Company has been experimenting with part-time jobs for over 25 years. The company reports that part-time workers have proved to be dependable and productive. Another company with substantial part-time employment is Control Data, whose bindery in Selby, Massachusetts, uses only part-time workers. The morning shift consists of working mothers, and the afternoon shift is made up largely of students. Absenteeism at the plant is about 3 percent, compared with 8 percent for the corporation overall.

From the employer's viewpoint, the benefits of part-

time employment are reduced overtime, higher productivity, reduced absenteeism, and a lower total wage bill. Some savings may be experienced in fringe benefit costs because not all benefits are offered. The most frequent additional cost of part-time employment is supervision and added recordkeeping.<sup>4</sup>

The reduced absenteeism of part-time workers is important in a UI context. Employers who use part-time workers have said that in many cases part-time workers had a better absenteeism record than full-time workers. Among the part-time workers, married women had better records than students. An extensive review of recent UI appeals decisions revealed that absenteeism is a significant factor in disqualifying separations.

From the worker's viewpoint, those who choose to work part time usually do so because they must work but cannot work full time because of personal circumstances. A significant group are students who are financing at least part of their school costs and getting job experience for the future.

Another group are older workers who are supplementing their pensions and gradually adjusting to total retirement. Other part-time workers have physical limitations that make it impossible for them to work a full-time schedule but do not prevent them from adequately managing part-time hours.

More than half the part-time workers are women; most of these are married women with children. They need the income, but family responsibilities prevent their working at full-time jobs.

## **Women and Part-Time Work**

Without question, the major factor in the growth of part-time employment is the upward trend for married women to work. In 1963, 33.7 percent of them worked; in 1973, 46.6 percent. Even mothers of young children are joining the labor force in greater numbers. By March 1973, 52.8 percent of mothers with children age 6 to 17 were in the labor force, as were 30.2 percent of mothers with children under 3. In 1976, 37.4 percent of mothers with children under 6 were in the labor force. This trend applies primarily to women living with their husbands.

Approximately one-third of working mothers try to balance their home and work responsibilities by taking part-time paid employment for some part of a given year. But part-time work will be a factor in the work-life of the majority of married working women at some time during a 6-year span of their adult lives. Thus, policies relating to part-time employment will affect possibly three-fifths of the female labor force.

Married women constitute the largest portion of the part-time labor force because, economically, a large number of them must work, but social, cultural, and demographic influences limit them to part-time work. For many women, part-time employment provides a transition period between the time spent out of the labor

force to have children and a later period, when children are grown and full-time work becomes desirable.<sup>5</sup>

Various studies of working women, especially married women, found that financial necessity was the dominant motive for seeking work. Half of the women working out of financial necessity were working part time. For women with schoolchildren, working only when the children are in school saves the costs of child care and may make a larger net contribution to the family income than full-time work.

About one-third of the women in the following industries worked part time in 1970: agricultural services; wholesale trade of farm products; most types of retail trade establishments, such as food stores, drugstores, department stores, and eating and drinking places; real estate; business services, such as employment and consulting agencies; all personal services, including private households, lodging places, and beauty shops; all entertainment and recreation services, including theaters, bowling alleys, museums, art galleries, and zoos; religious organizations; nonprofit membership organizations; and the postal service.<sup>6</sup>

A major problem of working women is the intermittency of their labor force attachment and their employment record for social security purposes. This intermittency is forced on them by the fact that they have children and other family responsibilities. It is their effort to reduce the time spent out of the labor force, rather than their tenuous attachment to it, that makes many married women turn to part-time work. This fact is supported by data from the National Longitudinal Survey. These data show that more children in the family and the presence of a preschool child are major factors in determining whether women work part time.<sup>7</sup>

### **Current UI Policy for Part-Time Workers**

Most voluntary part-time workers hold jobs covered by the UI system, and UI taxes are paid on their wages. Over one-third of those who worked part time in 1977 worked 48 weeks or more during the year. On the average they worked 18.6 hours per week in 1978. Weekly hours averaged 18.2 for men, 18.8 for all women, and 19.5 for married women in husband-wife families.

Thus, most voluntary part-time workers work long enough in a year to meet the monetary qualifying requirements of their State UI laws. If they lose their part-time jobs, however, they cannot count on the protection against wage loss their work should have earned them.

Under all UI laws, benefit eligibility depends on a number of requirements in addition to past employment. These deal with the nature of the individual's separation and with the individual's current attachment to the labor force. They are meant to make certain the worker is unemployed because of lack of work. One of these requirements is that the worker be available for work.

Most of the requirements do not affect part-time workers as a group differently from the way they affect other workers. But the part-time worker encounters a special obstacle in meeting the availability requirement as that requirement is interpreted and applied in many States. Part-time workers are declared unavailable even though they are ready, willing, and able to do the work they have been doing.

The requirement of current availability for work is necessary to carry out the function of the UI program to provide cash payments to the individuals who have been working and currently lack the opportunity to do so. When individuals cannot accept any work because of personal circumstances, or when they do not because they prefer not to work, they are deemed unavailable. Benefits are not payable because the cause of unemployment is not the lack of suitable work.

Current application of the availability requirement automatically bars (as most States do) part-time workers from eligibility for benefits if claimants are unavailable for work whenever personal or other circumstances prevent them from accepting a full-time job. Indeed, if good personal reasons for not accepting certain types of employment are ignored, the application of the availability requirement has been a stumbling block even for some full-time workers who are restricted in the kinds of work they can accept. It is part-time workers, however, who are excluded as a group and, by definition, by this requirement.

For voluntary part-time workers, then, the issue is whether the factors that make them choose part-time work make them unavailable for work in the sense intended by the UI law.

The discussion of eligibility for part-time workers tends to center in a rather subjective way on the presumed weak labor force attachment of married women; the facts do not support that presumption. It is probable that both the UI exclusion of part-time workers and the lack of concern with the problem stem from the fact that so many part-time workers are women. In their 1966 study, William Haber and Merrill Murray give special emphasis to women in their discussion of abuse of the UI system.

It is generally felt that most married women work only to supplement the family income in order to have a higher standard of living. Women move in and out of the labor force market more than men, and a high proportion work on part-time jobs. These two facts are pointed to as evidence that women are less firmly attached to the labor market and their "right" to collect is therefore doubtful.<sup>8</sup>

Haber and Murray make recommendations for a more flexible availability requirement, but they place women in a special category. They recommend that workers who work a substantial number of hours of the week and through most of the year be qualified for benefits but that special care be taken to make sure that they

are available for work when unemployed. They also stress that the requirement must be applied individually on this principle: "If a claimant has unavoidable restrictions on his availability for certain types of work, he should be given the benefit of the doubt that there is a substantial amount of work for which he is available."<sup>9</sup>

The authors do not, however, apply this principle to women. On the contrary, they state explicitly that women whose work restrictions stem from domestic responsibility should not be presumed available. Instead, they state that these women should be required to give positive proof of their availability by actively searching for work, becoming reemployed after voluntarily leaving a job or the work force, or rearranging their marital or domestic duties so they are better able to accept suitable employment.<sup>10</sup>

## State Treatment

Most States construe their availability requirement to exclude all part-time workers, either by statute or administrative interpretation.

Four State laws—those of Michigan, New Hampshire, Oklahoma, and West Virginia—specify that a claimant must be available for full-time work. Clearly, the legislatures in these States intended to bar part-time workers, and only new legislation could enable part-timers to participate in the UI system. In three other States—Illinois, Indiana, and Minnesota—there is statutory language that might be considered as the equivalent of a requirement of full-time work. In most States, however, administrative interpretation, not the law, disqualifies part-time workers.

Some States have interpreted the phrase "available for work" or "available for suitable work" to mean that a worker must be ready to accept work with absolutely no limitation on the days or hours for the job. Even an expression of preference for a job that does not include Saturday work can be, and has been, interpreted as making the claimant unavailable.

This interpretation not only denies benefits to all part-time workers, it places an unreasonable burden on all claimants. Benefits are denied to workers who do not have cars and can work only when public transportation is operating. People who can work only between the hours of 6 a.m. and midnight because those are the hours when the buses run are, in fact, available for much of the work in most communities, but they might not be sufficiently available to qualify for UI. Women who cannot work on Saturdays because they are unable to arrange for child care that day might be considered unavailable even though many businesses use their services from Monday through Friday.

The only restriction the courts generally have allowed is related to religion. Under the First Amendment, courts have held that claimants who will not work on

Saturday or Sunday because of religious beliefs cannot be considered unavailable.

Other States' interpretation is cast simply in terms of full-time work. Obviously, this interpretation rules out all workers who can work only part time.

Finally, 11 States interpret availability so that otherwise eligible part-time workers can receive payments if they have reason for restricting themselves to part-time work and if there is a significant market for their services at the hours and wages they are seeking. In some cases, courts have brought about these interpretations. In one case, the court's reasoning was that, if the legislature had intended a limitation to full-time work, it would have said "full-time work" rather than simply "work."

Appendices A and B summarize court decisions and recent appeal decisions on availability. (It will be noted that not all the appeal decisions show a clear policy.)

## Recommendations

The UI system is not properly filling its role in the economy when it excludes from protection a substantial part of the labor force, namely, workers who have sufficient past attachment to the covered labor force and who are ready and willing to accept work for which they are qualified and which prevails in the market where they are seeking work.

Permanent part-time employment is important to the economy because it provides an economical way for employers to meet predictable variations in business. It also permits smaller businesses to scale personnel to their needs.

Permanent part-time employment is important to workers. For students, it frequently provides the funds necessary for their education. For older or partially disabled people, it may allow independence by supplementing inadequate retirement or disability pensions.

For working mothers, who make up the bulk of the part-time work force, part-time employment is an essential part of family income. Certainly, replacing half the mother's part-time wage would be more important to the family—and more in keeping with the basic function of UI—than providing a small increase in the wage replacement for an unemployed father through dependents' allowances.

Compared with full-time work, part-time work is more likely to be in the low-wage industries, such as trade. It offers less in the way of wage increases and promotional opportunities and is less likely to provide fringe benefits. Women limit themselves to part-time work because they must take care of their other responsibilities and must supplement the family income. Laws intended to protect the labor force should not add to women's disadvantages by denying them protection.

The interpretation and application of the "available

for work" requirement denies benefits to the part-time worker. UI claimants should be required to be currently in the labor force for *suitable* work because it is unreasonable to require individuals to be available for work that they could refuse without disqualification. Finally, the statutory provision should be written in broad terms because it must be applied under changing labor market conditions and to individuals seeking work under varied circumstances.

A broad statutory provision would require that claimants be "available for suitable work." It would permit the State agency to consider individual circumstances and changing labor market conditions in administering the requirements. It would permit the agency to require every claimant to make reasonable efforts to obtain employment.

The administrative definition of availability should require the following:

- that individuals be willing to accept suitable work that they have no good cause to refuse;
- that individuals have good cause for any limitation on their availability; and
- that, with their limitations, there is still a market for their services in their geographical area. "Market" in this sense does not mean that job vacancies necessarily exist; after all, the purpose of UI is to compensate for lack of appropriate job vacancies. It means, rather, that there is a potential employment field.

This definition would require individuals to be *reasonably* available, not available at all times and for all jobs. It would not provide payments to workers who are not genuinely interested in work or whose restrictions give them little prospect of finding a job. It would provide payments not only to part-time workers who are genuinely in the labor market but also to full-time workers who must put some limits on their availability.

## Notes

1. John D. Owen, "Why Part-Time Workers Tend to Be in Low-Wage Jobs," *Monthly Labor Review*, June 1978, p. 12.

2. Ethel D. Jones and James E. Long, *Women and Part-Week Work, Part I, Policy Implications and Summaries of Findings and Procedures* (Auburn, Auburn University, School of Business, Department of Economics, March 1978).

3. Robert W. Bednarzik, "Part-Time Work and Public Policy," Dissertation (Columbia, University of Missouri, August 1978), p. 53.

4. Stanley D. Nollen, Brenda B. Eddy, and Virginia H. Martin, *Permanent Part-Time Employment: An Exploratory Analysis of Employer-Level Issues* (Washing-

ton, D.C., Georgetown University, School of Business Administration, February 1977).

5. Bednarzik, "Part-Time," p. 42.

6. Carol Leon and Robert W. Bednarzik, "A Profile of Women on Part-Time Schedules," *Monthly Labor Review*, October 1978, pp. 4-5.

7. Jones and Long, *Women*.

8. William Haber and Merrill G. Murray, *Unemployment Insurance in the American Economy* (Homewood, Ill., Richard D. Irwin, Inc., 1966), p. 27.

9. Haber and Murray, citing Ralph Altman, *Availability for Work: A Study in Unemployment Compensation*.

10. Haber and Murray, *Unemployment*, p. 276.

## Appendix A: Digest of Court Decisions

Numerous court decisions on the issue of availability relate to the time restriction unemployed workers might put on the work they will accept. This digest does not claim to be a complete presentation of those cases nor to include all the types of issues that have been considered. It does indicate the way in which some courts, in different States and at different times, have regarded the issue of part-time work or of workers who put some limits on the time when they can or will work.

Following are 19 decisions from 15 States. Eight decisions, each from a different State, suggest that a part-time worker cannot expect to be paid benefits. It must be noted, however, that one of these States is Pennsylvania and that there are two other Pennsylvania decisions to the contrary in the second list.

### Michigan

*Ford Motor Company v. Appeal Board (in re Koski)* 316 Mich. 468, 25NW (2nd) 5886 (1947).

"There is nothing in the statute to justify the conclusion that the legislature intended a claimant might limit his employment to certain hours of the day where the work he is qualified to perform is not likewise limited."

### Pennsylvania

*Pennsylvania Commonwealth Board of Review v. Matthys*.

Claimant who accepted a part-time job without actively seeking full-time work from his new employer was improperly denied benefits. No full-time position was in fact available from that employer, and the claimant had maintained his availability by actively seeking full-time work.

### South Carolina

*Judson Mills v. UCC (in re Gaines)* 204 SC (2nd) 37, 28SE (2nd) 535 (1944).

Court held that the law was not intended to provide

benefits for a worker compelled to give up a job because of changes in personal circumstances. "The unemployed individual must be able to work and available for the work which he or she has been doing."

#### Tennessee

*Tennessee Supreme Court, 9/27/66. Aladdin Industries, Inc. v. Comm.*

Upheld agency's original decision that claimant who would not work an evening shift is unavailable.

#### Virginia

*Virginia Supreme Court of Appeals, 1951 UC Commonwealth of Virginia v. Tomko, et al. 192 VA 463 65SE (2nd) 524.*

"As used in the statute, the words 'available for work' imply that in order that an unemployed individual may be eligible to receive benefits, he must be willing to accept any suitable work which may be offered to him, without attaching thereto restrictions or conditions not usual and customary in that occupation but which he may desire because of his particular needs or circumstances."

#### Washington

*Jacobs v. UC 7P, 27 Wash. 641, 179P (2nd) 194 (1948).*

Held as one decisive factor in ineligibility the claimant's refusal to accept any employment other than during the daytime.

#### West Virginia

*West Virginia Circuit Court, 13th Judicial Circuit, Kanawha County No. 12,267 11/7/73.*

Student held not available.

#### Wisconsin

*Circuit Court, Dane County 4/9/74 Wichman v. DILHR and Avco Financial Services.*

By limiting her availability to part-time work, claimant imposed substantial restriction on her opportunities to obtain suitable employment and therefore effectively removed herself from the labor market.

Eleven decisions, from seven States, indicate that a part-time worker could receive benefits.

#### Alaska

*Alaska Supreme Court 3324, 7/12/78 Department of Labor v. Gayle Boucher and Vesta L. Spanos.*

"We agree with the Department that a claimant must be available for full-time work in order to qualify for unemployment benefits. Our decision does not encompass situations where a claimant had been employed previously in part-time work."

#### Alaska Supreme Court 3578 9/27/78

In this decision, subsequent to the one above, the court, while endorsing full-time requirements, refers to the California *Sanchez* case and says they "are persuaded, and believe 2-part test should be used. (1) available for suitable work which [claimant] has no good cause to refuse, and (2) available to substantial field of work." Parental responsibility was held good cause to refuse night work. Agency has burden of proof that claimant is not available to substantial field.

#### California

*California Supreme Court L.A. 30690, 10/5/77 Maria Dolores Sanchez v. App. Bd. & Carmen Vasquez.*

Claimant was held unavailable because she could not work on Saturday or Sunday because of child care. The Supreme Court made a careful study of the availability issue and stated the position: "Availability for work within the meaning of section 1253, subdivision (c) requires no more than (1) that an individual claimant be willing to accept suitable work which he has no good cause for refusing and (2) that the claimant thereby makes himself available to a substantial field of employment." According to the court's footnote, the term "field" was used to "avoid any implication that the measure of availability is necessarily the likelihood of employment. This approach is consistent with the precise purpose of the Unemployment Insurance Code, which is to provide relief for those unable to find suitable work."

The court found that parental responsibilities were good cause for time limitations on when an individual would work. "The rule of availability accepted by the board and the Court below, if approved and generalized, might exclude from the coverage of the unemployment compensation insurance system thousands of parents who actively seek work but who must nevertheless reserve some time to fulfill essential parental obligations."

The court also held that "once a claimant has shown he is available for suitable work which he has no good cause for refusing, the burden of proof on the issue of whether he is available to a 'substantial field of employment' lies with the department. If the department believes that a given claimant, despite his availability for such suitable work, is nevertheless not attached to a labor market of sufficient dimension, it may be expected to explain its position and support it with appropriate evidence."

*California Supreme Court S.F. 23811, 2/28/79 Marvin R. Glick, Dir. v. App. Bd. and Enid G. Ballantyne.*

Claimant, a law student, had good cause for not accepting work that would conflict with schooling. The same test of availability must be applied to students as to other claimants, that is, whether claimants, within

their restrictions, remain available to a substantial employment field. The test of availability cannot be predicated on lack of openings for a claimant but must be based on whether there is a potential employment field.

#### Delaware

*Delaware Supreme Court, New Castle County, 5381, 5/30/72 Marjorie K. Harper v. App. Bd.*

Claimant was advised by doctor to work only part time and had worked 2 days a week for 24 years. Administratively held unavailable—availability construed to mean for full-time work. Statute says “available for work.” Court stated that “if General Assembly had intended to make eligible for benefits only unemployed persons ‘available for full-time work’ it would have so stated in the Act.” “A labor market for an individual exists when there is a market for the type of service which he offers in the geographical area in which he offers them. ‘Market’ in this sense does not mean that job vacancies must exist. The purpose of unemployment compensation is to compensate for lack of appropriate job vacancies. It means only that the type of service which an individual is offering is generally performed in the geographical area in which he is offering them.” “So long as a claimant with such good cause for seeking part-time employment is genuinely part of a labor market and is willing, able and ready to accept some suitable work, he has met the statutory requirement of being ‘available for work.’” Case remanded to determine factual situation of whether there is a market for claimant’s services.

#### Georgia

*Georgia Court of Appeals, 348463, 10/11/73 Comm. et al. v. Grace M. Jones.*

Claimant restricted hours to 6 a.m. to 9 a.m., same hours as her former job, as cleaning person for Sears. Could not be disqualified on grounds of unavailability unless it was shown that no job market or reasonable job opportunities existed. “A reasonable construction of the language of the statute is not that the claimant must be available for work at all times and for all jobs, but only that claimant must be reasonably available. Since claimant worked these hours for 6 years, burden is on agency to show that such job market no longer exists.”

#### Illinois

*Illinois Supreme Court, 409 Ill. 79, 97NE 2nd 762 (1951) Mohler v. Department of Labor.*

The court held that “no hard and fast rule as to what constitutes availability for work can be adopted. . . . Availability depends in part on the facts and circumstances in each case, and . . . in general the availability requirement of the statute is satisfied when a worker is ready and willing to accept suitable work

at a point where there is an available labor market, which work he does not have good cause to refuse.”

*Ill. Court of Appeals, First District, Div. Two 77-1466, filed 5/23/78, released 6/30/78 Jean Rosenbaum v. Donald A. Johnson, Dir., Department of Labor.*

Claimant had worked on part-time basis for about 5 years and took leave because of illness. When ready to return to work, claimant was told only full-time work was available. Administratively denied benefits on the grounds that the law requires a person to be “ready, willing and able to accept regular full-time employment which he has reasonable prospects of obtaining.” Circuit court upheld denial. The director conceded that the act does not specifically state that an individual must be available for full-time work but argued that long administrative construction was entitled to great weight. Court agreed that long construction was entitled to great weight by review court. “On the other hand, erroneous construction is not binding.”

Court reversed decisions and remanded the case for further proceedings consistent with the view that a part-time worker is not ineligible per se if there is a labor market for the individual’s services.

#### Ohio

*Ohio Court of Common Pleas, Summit County 77 4 1928, Frank L. Ruggles v. Bd. of Review, OBES, et al. 2/10/78.*

Claimant restricted his availability to part-time employment, which would not interfere with his receipt of social security benefits. Administratively found unavailable because of restrictions to part-time employment. Court found that law defines “employment” as “any service performed for wages,” making no distinction between part-time and full-time employment. “Suitable work includes that which employee has been doing.” Thus, the availability provisions include availability for part-time work.

#### Pennsylvania

*Pennsylvania Commonwealth 330 A 2nd 886 (1975) Myers v. Bd. of Review.*

A claimant who limited her availability for employment to part-time hours so that she could spend more time at home with her preschool-age son was not unavailable for work where such limitations did not completely remove her from the labor market, because some part-time jobs for which she was qualified were available.

*Pennsylvania Super. 294 111. A 2nd 175 (1955) Shay v. Bd. of Review.*

A claimant who restricted herself to part-time work was found available within the meaning of the law where reasonable opportunity for securing such work existed in the vicinity in which she lived.

## Appendix B: Summary of Administrative Appeals Cases

To determine how States were currently handling cases involving part-time workers, the authors and two other retired Department of Labor employees reviewed the appeals cases received by the Employment and Training Administration during March and April 1979.

Of the thousands of appeals cases reviewed, 65 could be identified as dealing with part-time workers' availability or otherwise indicating an interpretation of availability related to time restrictions.

Of the 64 cases so identified, nine indicate that a part-time worker could be considered available. The other 55 indicate that part-timers would be considered unavailable. The cases do not constitute a statistically valid sample, but they suggest how part-time workers might fare if their claim should reach appeal. Four States, noted with asterisks, have both affirmative and negative cases.

### Decisions indicating availability of part-time workers

The nine cases indicating availability are from nine States.

#### Alaska\*

*Referee, 78B-1469, 12/14/79.*

Claimant, a waitress, will work day or swing shift but not graveyard, 10 p.m. to 7 a.m., because of child care. Disqualified by agency as unavailable. Referee held her fully available for a substantial field of employment and thus eligible.

#### Georgia

Claimant would not work at night because she could not see to drive then. Appeal held her available because she is available for any daytime hours.

#### Kansas\*

*Referee, 78-5691 K, 8/21/78, Board of Review, BR-6415 K.*

Claimant employed as part-time secretary sought part-time work. Disqualified by agency on grounds that eligibility required search for full-time work. Referee held that, since she had been working part time, she had skills that could be sold on a part-time basis and was therefore eligible. Board of Review held that law requires being "able to perform duties of customary occupation." Claimant's customary occupation was in part-time employment. Referee's decision affirmed.

#### Louisiana

*3602 BR 78, 1/12/79.*

Claimant had worked part time and was available for part-time only because of need to take child for

speech therapy. Agency disqualified her, and referee upheld. Board of Review found that, since she had earned her wage credits in part-time work with the same restrictions, she was available and eligible.

#### Nebraska

*Referee, Vol. 78, No. 1815, 1/22/79.*

Claimant had worked part-time for about 4 years because of health. Restricted hours to 5 or 6 a day, not starting before 9 a.m. Held unavailable by agency. Referee held that, since in her base period she worked part time beginning at 9 and had found such work since filing her claim, "there are jobs in this metropolitan area for which the claimant is suited and which are available to her." Benefits allowed.

#### New Jersey

*Referee, E-TPC-78-492, 11/2/79.*

Claimant left full-time work because of health. In claim, she restricted work to 4 to 5 hours daily, 5 days a week. Agency held her unavailable. Referee held she was not available, but he did so holding that she did not come within the New Jersey provision for part-time workers because her wage credits had been earned in full-time work.

#### New Mexico\*

*Referee, 4393-78-0, 12/28/78.*

Claimant was waitress. Refused job because on 2 days she would have to work the 10 p.m. to 6 a.m. shift and would have no transportation. No public transportation was available. Husband could pick her up at 5 a.m. Agency held unavailable. Referee held a claimant was not required to be available 24 hours a day. Held her available.

#### Rhode Island\*

*Referee, 79-UC 104, 2/7/79.*

Claimant worked as a part-time cook, 8:30 a.m. to 2 p.m. Could not work longer because handicapped child got out of school at 2 p.m. Held available.

#### South Dakota

*16166, 8/21/78.*

Claimant hired as part-time worker, 10 a.m. to 5 p.m., 3 days a week. Work schedule changed several times, but when cut to 1 day, she left. Referee held quit was with good cause attributable to employer and allowed benefits.

### Decisions arguing part-time workers are not available

The 55 cases indicating unavailability are from 27 States.

#### Alabama

*Referee, 678-AT-79, 1/18/79; Board of Appeals, Case 6582, Dec. 5282, 2/23/79.*

Claimant, a waitress, available only during day because of child care. Referee held law requires claimants to be fully available. Claimant held not fully available because she could work day shift only. Board of Review affirmed denial.

#### Alaska\*

*Referee, 78A-1160, 12/14/78.*

Claimant attending school and available only for part-time work. Benefits denied. Held that, under Alaska Act, must be available for full-time work.

#### Arizona

*Director, 1467-78, D-397-78C, 1/28/79.*

Claimant's sole work experience was as part-time car rental clerk. At first she expressed preference for part-time work but later in claim series indicated willingness to accept full-time work and began active search for it. Held not available until she began search for full-time work. To be available, the director said, claimant must be following course of action for reemployment in "suitable full-time work."

*Director, 5788-78, D-1080-78E.*

Claimant employed 20 hours a week. Testified that in past she had not sought full-time employment because of child care but daughter was older now so claimant was available for full-time work. Appeal tribunal allowed benefits for some weeks. Director reversed decision on grounds that, in view of her past history of part-time employment, she had not demonstrated availability for full-time work.

*Director, 4988-78, D-970-78E.*

Claimant last employed part time and now attending school. Had worked and attended school for 11 years but had never worked full time and attended school full time. Agency benefit rules presume that student is unavailable, but presumption may be rebutted if claimant has a sufficient pattern of school and full-time work to show that school would not interrupt full-time work. Claimant did not have that pattern so was disqualified by director. Referee had allowed benefits.

*Referee, 5327-78, 5741-78E, 5/24/78; Director, D-1046-78.*

Claimant worked part time and did not seek other work because part-time job might become full-time job, as it did. Agency found her unavailable. Appeal tribunal found her available, and director upheld it, because her job did become full time.

#### Arkansas

*Board of Review, 78-BR-3401, 12/21/78.*

Claimant available only for shift concluded by 2

p.m. Agency determined she was unavailable. Referee and Board of Review upheld decision on grounds that law requires claimant to be actively seeking full-time work.

#### Connecticut

*Referee, 1063-B-76, 1/10/77; Board of Review, 42-77-BR-1063-B-76, 2/15/77.*

Claimant attended school so wanted second- or third-shift work. Agency held claimant unavailable. Referee and Board of Review affirmed. Not available if first shift excluded.

#### Delaware

*Referee, 32438, 5/12/78; Board of Review, 32438-A, 6/27/78.*

Claimant was full-time university student who worked part time at Chrysler and had been laid off. Available for work in evenings. Agency held claimant unavailable. Referee held that he was not available for normal day shift, which made him unavailable. Board of Review upheld.

#### Florida

*78-16782-U, 11/15/78; Board of Review, 78-3989, 1/29/79.*

Claimant was part-time secretary. Refused full-time work because of child care. Agency and referee held her to have refused suitable work and to be ineligible. Board of Review upheld.

#### Hawaii

*Referee, 2752-78, 1/15/79.*

Claimant left work as utility maid rather than work on Sunday because she wanted to attend church. Church has no policy prohibiting Sunday work. Referee decided that, since her faith does not impose sanctions for work on Sunday, she left work voluntarily for personal, noncompelling reasons and without good cause.

#### Illinois

*Referee, 78C-13521, 10/5/78.*

Claimant seeking only part-time employment. To be eligible, act requires claimant to seek full-time employment. Agency denied, and referee upheld.

#### Kansas\*

*Referee, 78-6550 K, 9/1/78; Board of Review, BR-6484 K, 11/9/78.*

Claimant attending school and looking for part-time work. Agency and referee held unavailable because claimant did not enter the labor market seeking full-time daywork. Board of Review affirmed.

*Referee, 78-6484 K, 9/15/78 K; Board of Review, BR-6503 K, 11/9/78.*

Claimant looking for 20 hours of work because she

has gall bladder trouble and feels unable to work more. Referee held unavailable. Board of Review upheld.

#### Maine

*Referee, 1192-3, 8/17/78; Commission, 78-C-5709, 10/17/78.*

Claimant cannot work full time because of ill husband. Agency and referee held not available. Claimant failed to appear at commission hearing.

#### Maryland

*Referee, 240682, 11/29/78; Board of Review, 173-BR-79, 1/30/79.*

Claimant seeking part-time work, 9 a.m. to 2 p.m. Referee denied on unavailability. Law requires claimant to be available for full-time work. Board of Review upheld.

*Referee, 18697-B, 11/24/78; Board of Review, 240296.*

Claimant not available for nightwork because of child care. Agency and referee held unavailable because claimant was not available for and not actively seeking full-time work. Board of Review affirmed.

#### Massachusetts

*H-73835, 6/3/77.*

Claimant is a full-time university student. Available for work evenings. Referee held law requires he be available for work. Students not available.

*H-71429, 3/3/77.*

Claimant's physical condition probably made her unable to work for 1 or 2 days a week. Claimant says she can work full time. Referee held her not eligible because she was not available for full-time work or making a realistic, active search for work.

*H-68318-TREX-OP, H-68319-FSB-OP.*

Claimant attending college. Said he was available for full-time work. Referee said not available because he is a student.

*H-71526-A, 2/28/77.*

Claimant worked part time as switchboard operator, along with another part-time worker. The other worker left, and employer decided to get full-time worker. Told worker she could not get benefits because she was a part-time worker. She said she would take job on full-time basis, but he already had someone. Referee allowed benefits because she was willing to take the full-time job.

#### Missouri

*Referee, EB-16212-77, 1/10/77.*

Claimant told deputy she preferred part-time work but would accept full-time work. Referee ruled that

claimant would much prefer part-time work and therefore was unavailable.

#### New Mexico\*

*Referee, 181-79-U, 1/17/79.*

Claimant wanted part-time, sitdown work for health reasons. Last employment met those requirements. Agency denied benefits. Referee held that she was unavailable because of the restrictions.

#### New York

*Referee, 78-40323, 9/7/78; Board of Review, 277,729, 12/15/78.*

Claimant, a licensed practical nurse, worked 20 hours a week for 5 days a week, 7:30 a.m. to 11:30 a.m. or 8:30 a.m. to 12:30 p.m. Initial determination held her unavailable. Referee held that jobs with her time-slot restrictions make the possibility of employment remote. Board of Review affirmed denial.

*Referee, 78-47423, 10/6/78; Board of Review, 279,238, 11/27/78.*

Claimant is willing to work only 3 days a week. Agency denied benefits. Referee held that, since she would work only 3 days a week, she could not accumulate any effective days, so upheld denial.

#### North Dakota

*Director, AT-1-9569-78, 10/26/78.*

Claimant had worked full time for 19 years and was put on part time at her request because of family problem. Laid off for lack of work. Says she can again work full time, preferably the night shift. Deputy held her unavailable, and referee affirmed that decision. Director held that claimant must be available for full-time work and be making active search. She did not meet search requirement.

#### Oklahoma

*Referee, 79-AT-110, 10/5/78.*

Claimant left full-time work because of health and was now available for 5 days, 8 hours each, with 2 days off together. Initial determination disqualified on separation issue. Referee reversed separation disqualification but held that, since she could work only 40 hours, Monday through Friday, she was not available.

#### Pennsylvania

*Referee, 78-1-A-1501, 10/19/78; Board of Review, B-168164, 1/22/79.*

Claimant available for only 3 days a week for reasons of health and family responsibility. Worked those hours at prior job. Agency held unavailable. Referee and Board of Review affirmed.

*Referee, 12/12/78; Board of Review, B-168782, 2/5/79.*

Claimant will work only between 8 a.m. and 1:30 p.m. because of child care. Worked those hours for over a year and a half. Referee found there is not a labor market for work that claimant can do during these hours. Board of Review affirmed unavailability.

*Referee, 78-3-I-127, 5/11/78; Board of Review, B-166028, 11/21/78.*

Claimant looking for part-time work, 7 p.m. to 2 a.m. Agency ruled she was ineligible as voluntary quit. Referee overturned that decision but held her unavailable because she was not fully available for full-time work. Board of Review affirmed referee.

#### Rhode Island\*

*Referee, 78 UC 3843, 11/30/78.*

Claimant was a clerical worker now attending a beauty culture school. Would give up school or change to night courses if full-time work available. Referee held her unavailable. Law requires full, free, and unrestricted availability.

*Referee, 78 UC 4276, 1/11/79.*

Claimant can work only from 8 a.m. to 3 p.m. because of child care. Claimant denied as unavailable because she put restrictions on her availability.

*Referee, 78 UC 4216, 12/13/78.*

Claimant, a waitress, worked 25 hours a week. After she filed claim, employer recalled her and offered her work for 12 hours a week. She refused. Referee held that she had refused suitable work with no credible evidence that the reduction in hours made the job unsuitable.

*Referee, 78 UC 4230, 1/11/79.*

Claimant is high school student, not available for normal first-shift hours. Referee held he did not meet availability requirement. Must have full, free, and unrestricted availability for full-time work.

#### South Carolina

*Commission, 79-A-711, 2/15/79.*

Claimant worked as part-time waitress because attending school. Benefits denied because act requires availability for full-time work.

*Referee, 79-A-140, 1/10/79.*

Claimant was part-time custodian/maid working 15 hours a week. Had no real interest in full-time work and did not look for it. Claims adjudicator found her eligible. Referee held "she has not satisfied the availability requirements of the Law as far as being a bona fide member of the full-time labor force and as far as making a conscientious and sustained effort to search for full-time work."

#### Tennessee

*Referee, 78-AT-5242TB, 9/19/78; Board of Review, 79-BR-88TB, 1/16/79.*

Claimant left because she thought she had to retire at 65. Available for only 4 hours a day. Referee held claimant unavailable because available for part-time work only. Board of Review affirmed.

*Referee, 78-AT-6241, 10/13/78; Board of Review, 78-BR-1855, 12/19/78.*

Claimant worked part time as cashier because of child care. Took summer leave of absence for that reason. Job not open at end of leave. Offered another job by employer with 2:30 p.m. to 7:00 p.m. hours. Refused job. Referee denied on refusal of suitable work. Board of Review affirmed.

*Referee, 78-AT-4050, 6/27/78; Board of Review, 79-BR-117, 1/18/79.*

Claimant was employed part time as a skip tracer. Laid off because job being contracted out. Worked part time because of child care. Offered full-time typing work and declined. Benefits allowed by agency. Referee held unavailable because she did not want full-time work. Board of Review affirmed referee denial.

#### Texas

*Referee, 3354-AT-PUS-78, 12/21/78.*

Claimant worked part time as a schoolbus driver and left to accompany husband to Kentucky. Claimant disqualified 1 week for that leaving. Looking at first for part-time employment in Kentucky because of child care. Later in claim series claimants arranged for care and looked for full-time work. Referee upheld initial determination disqualification for voluntary quit and the unavailability during period when looking for part-time work. State commission has held that individual must be available for full-time work to be eligible.

*Referee, 30852-AT-78, 11/15/78; Board of Review, 2852-CA-78, 1/24/79.*

Claimant could not work full time because of health. Agency held claimant unable to work. Referee held that commission and courts consistently held that a claimant must be available for full-time work.

*Referee, 35390-AT-PUS-78, 1/9/79.*

Claimant available only for day shift because of child care. Agency held claimant unavailable. Referee held that claimant had been seeking dispatcher work and some factory work. Most dispatcher work done on three shifts, and most factory employers have two shifts. By limiting availability to day shift, she eliminated two-thirds of the hours normally required as dispatcher and half the hours normally required as factory worker. Availability unduly limited and claimant ineligible.

*Referee, 28477-AT-78, 10/31/78; Board of Review, 2856-CA-78, 11/6/78.*

Claimant employed part time. Left because of cut in fringe benefits. Agency disqualified for voluntary quit.

Referee reversed that decision but held her unavailable because of part time. Board of Review reversed referee on voluntary quit and upheld unavailability denial.

#### Utah

*Referee, 78-A-2985, 1/3/79.*

Claimant, 65 and with a blood pressure problem, said she did not feel able to work full time every week. Referee held claimant not available. Utah law interpreted as requiring willingness to accept full-time work if offered and active seeking of such work. Board of Review and Utah Supreme Court have affirmed this interpretation. The supreme court decision cited relates to active search.

*Referee, 78-A-2510, 10/19/78.*

Claimant worked part time, left for physical reasons—childbirth—and subsequently wanted part-time work. Agency denied benefits. Referee found her unavailable.

#### Virginia

*Referee, UI-78-1923, 4/24/78.*

Claimant will work only first shift because she has 12-month-old twins and no night baby care. Held unavailable.

*Referee, UI-78-2066, 3/29/78; Board of Review, 10915-C, 9/20/78.*

Claimant seeking part-time work. Agency held her unavailable. Referee ruled that Virginia Supreme Court of Appeals held that, if individual restricts willingness to work to hours or conditions to fit own circumstances, individual is not available. Commission upheld referee.

#### West Virginia

*Board of Review, 78-3535.*

Claimant restricted availability to 9 a.m. to 3 p.m. Agency and referee found her unavailable. Board of Review upheld denial, holding that law requires availability for full-time work.

*Board of Review, 78-3342, 10/13/78.*

Claimant going to night school. Therefore she is not available for full-time work, any shift, around the clock. Benefits denied. Denial upheld by Board of Review.

*Board of Review, 78-3197.*

Claimant would work only 9 a.m. to 5 p.m., and not on Saturday. Agency held unavailable. Board of Review affirmed.

*Board of Review, 78-3660, 10/26/79.*

Claimant is full-time student, but class schedule is flexible. Referee found him ineligible. Board of Review allowed benefits, in spite of West Virginia requirement of full-time work, because he could arrange his schedule to take full-time work.

#### Wisconsin

*Referee, 78-41192FA, 7/17/78; Board of Review, 78-41192FA, 12/6/78.*

Claimant wants only part-time work. Agency found claimant unavailable. Referee held that only small percentage of jobs he is qualified for are on part-time basis. He is not substantially attached to labor market and is ineligible. Board of Review affirmed.

*78-A-60517M, 2/23/78.*

Claimant is student. Not available for first-shift work. Agency held ineligible because 80 percent of all workers in area work first shift. Referee upheld agency finding of unavailability.

# Administration of the Pregnancy Standard

Margaret M. Dahm  
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**E**nactment of the Unemployment Compensation Amendments of 1976 (Public Law 94-566) marked the beginning of a new era of protection for working women in the Federal-State unemployment insurance (UI) system. The new legislation extended UI coverage to some domestic employees and required, as a condition for the Secretary of Labor's approval of a State unemployment compensation law, that no person be denied compensation under such law solely on the basis of pregnancy or termination of pregnancy.

To determine whether States' applications of the Federal standard are meeting the intent of the law, and whether any changes are necessary to insure that the law's objectives are met, 218 appeals cases involving pregnant claimants in 47 States were reviewed. Results indicate that, by and large, the Federal standard on pregnancy has assured that pregnant women whose unemployment began for lack of work are being paid benefits. Evidence exists, however, that some employers use questionable methods to persuade pregnant women to leave work voluntarily, making these women subject to disqualification from benefits. Also, some States disqualify pregnant claimants who do not know about availability of maternity leave; and some women granted maternity leave are disqualified as not unemployed.

## History of the Pregnancy Disqualification

In the early years of the UI program, temporary compensation for lost wages was paid to all unemployed workers who passed certain tests of attachment to the labor force and who were not disqualified for voluntarily quitting a job without good cause, for refusing suitable work, or for being discharged for misconduct. No groups were singled out for special treatment: all workers who claimed benefits were subject to the same rules.

Over the years, however, States began to deny benefits to entire groups without reviewing circumstances in individual cases. Another development in State UI laws limited the definition of good cause for voluntarily quitting to reasons connected with the work or attributable to the employer. Good personal reasons,

such as a better job, and illness of the claimant or the claimant's family, were no longer considered valid for establishing entitlement. These limitations helped claims examiners who needed to make quick decisions as they faced long lines of claimants. The limitations also lowered employers' tax rates, which rose and fell with the number of former workers receiving benefits.

Despite consistent recommendations against these restrictions by the U.S. Department of Labor (DOL), States continued to limit protection to all workers within certain categories, on the assumption these workers were unavailable for work. In 1964, 40 States had statutory provisions that explicitly or implicitly discriminated against women. The most common explicit statutory barrier was pregnancy: 36 States had special provisions on entitlement of pregnant women (see Table 1). By 1971, Alabama and Tennessee had also enacted pregnancy provisions, bringing the total to 42 States that discriminated against women, of which 38 States discriminated through special provisions on pregnancy.

Under general eligibility provisions, anyone who is physically unable or who does not wish to work is ineligible for unemployment compensation (UC). Pregnant women who cannot or do not want to work would, therefore, be ineligible for benefits. It is neither accurate nor fair, however, to assume that all pregnant women cannot and do not want to work. Most women can work during part or most of their pregnancy; most women are unable to work immediately before and after delivery. The length of time not worked because of childbirth should be an individual matter, depending on health of mother and child, freedom from complications at delivery, availability of child care, and demands of the job. Pregnant workers are just as likely

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TABLE 1. Special availability and disqualification provisions for pregnancy and marital obligations, 40 States, as of January 1964

State	Period of disqualification or unavailability	
	Unemployment due to pregnancy <sup>1</sup> (36 States)	Unemployment due to marital obligations <sup>2</sup> (24 States)
Alaska	Until employed with wages of at least \$120.	Until employed with wages of at least \$120.
Ark.	Until employed 30 days. <sup>3</sup>	Until employed 30 days. <sup>4</sup>
Calif.		Until employed in bona fide employment. <sup>4</sup>
Colo.	If voluntarily left because of pregnancy, duration of pregnancy; if laid off because of pregnancy, 30 days before childbirth. <sup>5</sup> If sole support of children or invalid husband, ineligible for 30 days after termination of pregnancy; otherwise, ineligible until employed 13 weeks in full-time covered work.	Until employed 13 weeks in full-time covered work. <sup>4</sup>
Conn.	Any week of unemployment due to pregnancy, but not less than 2 months before and 2 after childbirth. <sup>5</sup>	
Del.	Any week of unemployment due to pregnancy, but not less than 8 weeks before and 6 after childbirth.	
D.C.	6 weeks before and 6 after childbirth.	
Ga.	If she voluntarily left work because of pregnancy, duration of pregnancy and until she earns 8 × wba in bona fide insured work.	
Hawaii	4 months before and 2 after childbirth.	Until shows evidence of availability besides registration for work.
Idaho	6 weeks before and 6 after childbirth. <sup>6</sup>	Until demonstrates desire and availability for work or becomes main support of self and family.
Ill.	13 weeks before and 4 after childbirth. <sup>6</sup>	Until domestic circumstances causing separation cease, returns to locality left, or earns 8 × wba in work covered under an unemployment insurance law. <sup>7</sup>
Ind.	Duration of unemployment due to pregnancy.	Until \$200 is earned in employment covered under an unemployment insurance law.
Kans.	2 months before and 1 after childbirth.	Until 8 × wba is earned.
Ky.		Until employed in bona fide work.
La.	12 weeks before and 6 after childbirth.	
Maine	Any week of unemployment due to pregnancy, but not less than 8 weeks before and 4 after childbirth.	If voluntarily left work, until 15 × wba is earned and 4 full weeks work.
Md.	2 months before and 2 after childbirth.	
Mass.	Any week of unemployment due to pregnancy, but not less than 4 weeks before and 4 after childbirth. <sup>8</sup>	
Mich.	Duration of unemployment due to pregnancy. <sup>3</sup>	If voluntarily left work, until employed 2 weeks in insured work; if dismissed due to employer rule on employment of married women, all wage credits with such employer canceled. <sup>4</sup>
Minn.	Until employed 2 weeks in insured work.	Until employed with earnings of 8 × wba.
Miss.		
Mo.	3 months before and 4 weeks after childbirth.	
Mont.	If she left most recent work during pregnancy and unless she submits medical evidence of ability to work, until 2 months following childbirth.	All existing wage credits canceled.
Nebr.	12 weeks before and 4 after childbirth. <sup>6</sup>	
Nev.	Any week of unemployment due to pregnancy but not less than 60 days before childbirth and until proof of ability to resume is submitted.	Until \$50 is earned in bona fide work.
N. H.	8 weeks before and 8 weeks after childbirth. <sup>9</sup>	
N. J.	4 weeks before and 4 after childbirth.	
N. Y.		Until employed 3 days in each of 4 weeks or earned \$200.
N. C.	If separated for pregnancy, duration of pregnancy; regardless of cause of separation, 3 months before and 3 after childbirth. <sup>5</sup>	
N. Dak.	4 months before and until employed with earnings of 10 × wba. <sup>10</sup>	Until employed with earnings of 10 × wba. <sup>10</sup>
Ohio	If pregnancy was cause of separation, duration of unemployment and until submits medical evidence of ability to work and work with former employer is no longer available.	Until wages equal to wba are earned in employment in work covered under an unemployment insurance law.
Okla.	6 weeks before and 6 after childbirth.	Until employed in bona fide work.
Oreg.	From week of leaving until 6 weeks after childbirth.	Until employed in bona fide work.
Pa.	If laid off because of pregnancy, 3 months before and 1 after childbirth; if voluntarily left work, until 8 × wba is earned; if neither disqualification applies, presumed unavailable 1 month before and 1 after childbirth.	Until 8 × wba is earned. <sup>4</sup>

TABLE 1. Special availability and disqualification provisions for pregnancy and marital obligations, 40 States, as of January 1964 (*continued*)

State	Period of disqualification or unavailability	
	Unemployment due to pregnancy <sup>1</sup> (36 States)	Unemployment due to marital obligations <sup>2</sup> (24 States)
S. Dak.	If voluntarily left work because of pregnancy, until at least 30 days after childbirth; if dismissed because of pregnancy, at least 60 days before and 30 after childbirth.	
Utah	Any week of unemployment due to pregnancy, but not less than 12 weeks before and 6 after childbirth.	Until \$100 is earned or individual becomes main support of self or family.
Vt.	8 weeks before and 4 after childbirth.	
Wash.	10 weeks before and 4 after childbirth. <sup>3</sup>	
W. Va.	Until employed 30 days in insured work or, if medical evidence of ability to work is submitted, not more than 6 weeks after childbirth. If laid off because of pregnancy and medical evidence of ability to work is submitted, not more than 6 weeks before childbirth.	Until employed 30 days in insured work.
Wis.	10 weeks before and 4 after childbirth. <sup>5</sup>	Until employed in 4 weeks and earns \$200.

<sup>1</sup> 14 States (Idaho, Illinois, Indiana, Kansas, Maine, Massachusetts, Missouri, Nebraska, New Jersey, North Carolina, North Dakota, South Dakota, Washington, and Wisconsin) provide that if unemployment is due to pregnancy, a woman shall be deemed unavailable for the period specified; the other 22 provide for disqualification.

<sup>2</sup> 5 States (Hawaii, Idaho, Illinois, North Dakota, and Oklahoma) provide that an individual who leaves work voluntarily because of marital obligations shall be deemed to be unavailable; the other 19 provide for disqualification. The situations to which the provisions apply are stated in terms of leaving: to perform duties of housewife, 7 States (Arkansas, Hawaii, Idaho, Indiana, Maine, Minnesota, and Utah); to move with spouse or family, 12 States (Alaska, California, Idaho, Illinois, Indiana, Maine, Minnesota, Montana, New York, Oregon, Pennsylvania, and Wisconsin); because of marital, parental, filial, or domestic obligations, 12 States (California, Colorado, Hawaii, Illinois, Indiana, Kansas, Mississippi, North Dakota, Ohio, Oregon, Pennsylvania, and West Virginia); or to marry, 18 States (all except Colorado, Kansas, Minnesota, Mississippi, Pennsylvania, and Wisconsin).

<sup>3</sup> Disqualification not applicable if claimant applies for reinstatement after leave of absence and is not reinstated (Arkansas); disqualification satisfied if claimant, granted leave of absence and assurance of reemployment, was not reemployed (Michigan).

<sup>4</sup> Not applicable if claimant leaves to join husband in new residence and immediately upon arrival enters the labor market and makes a reasonable effort to secure work (Arkansas); if claimant is sole or major support of family (California); if worker informs employer before leaving and submits medical evidence that health of spouse or dependent child requires leaving vicinity of employment (Colorado); if claimant is sole support of herself or main support of member of immediate family (Minnesota); if individual was sole or major support of family during substantial part of 6 months prior to leaving work or filing claim and such work is not within reasonable commuting distance of new locality (Pennsylvania).

<sup>5</sup> Ineligible until 30 days after termination of pregnancy, if laid off for pregnancy under reasonable rule of employer (Colorado); until she applies without restriction for former or comparable job with last employer or earns \$100 (Connecticut); until she notifies most recent employer of ability and availability for work, and, thereafter, until employed 30 hours in a week or shows active and bona fide search for work (Wisconsin). Benefits not denied if child dies and claimant is otherwise eligible (Connecticut and North Carolina).

<sup>6</sup> Duration of the pregnancy if voluntarily left work (Idaho); if voluntarily left work because of pregnancy (Illinois, Nebraska, and Washington).

<sup>7</sup> Unless the claimant is or has become sole support of herself and family.

<sup>8</sup> Presumed to be unavailable if, solely for personal reasons, she is not able to continue in or return to position in which most recently employed.

<sup>9</sup> Disqualification terminated if, after childbirth, she earns in 1 week her weekly benefit amount plus \$3 in insured work.

<sup>10</sup> And until she can show that separation from last work was not disqualifying.

SOURCE: Comparison of State Unemployment Insurance Laws as of January 1, 1964. BES No. U-141. U.S. Department of Labor, Bureau of Employment Security, Unemployment Insurance Service.

as other workers to face temporary job loss for economic reasons and should be similarly compensated.

The provisions affecting pregnant claimants adversely varied from State to State. Some States imposed disqualifications for a specified period (up to 4 months before and 3 months after delivery). Of course, the longer the period, the greater the number of women who were denied compensation although able and available for work, and who lost their jobs because of lack of work. In some States, benefits were denied for the duration of unemployment "due to pregnancy"; the burden of determining when unemployment was traceable to pregnancy rather than another cause was placed on the claimant. Other States combined this kind of denial with minimum periods of denial before and after delivery. According to an opinion in one State, it was "consistently held that pregnancy is a voluntary act and thus claimant could not be held involuntarily unemployed." Under a collective bargaining agreement in New York, a claimant was held unavailable for work

after the fifth month of pregnancy "regardless of her personal opinion."<sup>1</sup>

### The New York State experience

In 1963, a study was published on pregnancy claims in New York in 1960.<sup>2</sup> New York had no statutory exclusion of pregnant claimants, but its administrator stated frankly that, as a "safeguard," local administrators made a "rigorous examination of the eligibility of pregnant women claimants."

The study found that pregnant women represented only about 1 percent of all new claimants in 1960 and that benefit payments to pregnant claimants accounted for less than 1 percent of all payments. One explanation for these low figures was that only one of eight pregnant workers filed claims after leaving or losing their jobs. Few pregnant workers quit their jobs voluntarily: 8 of 10 claimants had been laid off. While most were laid off for lack of work, about 25 percent were laid off because of company restrictions on the employment of pregnant women.

The study's survey found that 30 percent of the pregnant claimants received no benefits at all. Three-fifths were disqualified at some stage of pregnancy, mostly because they were unable to prove their availability for work.

Although white-collar workers were about one-fourth of New York State's women claimants, they made up about one-half of the pregnant claimants. Fifteen percent of the pregnant claimants said they were the main financial support of their families. More than half of those who did get benefits had from 1 to 4 years of work experience. About 40 percent of the pregnant beneficiaries had one child or more; almost all of this group had received no benefits during their previous pregnancies.

First claims were filed most often between the fourth and seventh months of pregnancy. On average, benefits were received for a little less than 3 months, with 37 percent of last payments coming before the eighth month of pregnancy, and only 23 percent of last payments coming in the ninth month.

At least one-sixth of New York beneficiaries worked during their benefit year. Though the study did not show how much work coincided with pregnancy, more than 40 percent of the women worked at least 14 weeks. Furthermore, 3 months after childbirth, 14 percent of the pregnant claimants were back at work, 43 percent expected to return to work, 20 percent had refiled for benefits, and 23 percent were out of the labor market.

### Availability of pregnant claimants

State UI administrators have treated pregnant claimants as unavailable for work because employers were assumed to be unwilling to hire them. In her paper *Unemployment Insurance and Women*, prepared in 1973 for the Joint Economic Committee hearings on women's economic problems, Margaret Dahm emphasized that a policy under which availability is made dependent on employer willingness to hire a particular category of claimant reinforces discrimination by employers against groups of people, whether these groups are pregnant women, older workers, or members of minorities. Dahm also pointed out that such an approach to pregnant women is illegal.

Public policy for pregnant women, as expressed in the Equal Employment Opportunity Commission's (EEOC) *Guidelines on Discrimination Because of Sex*, is as follows: "A written or unwritten employment policy or practice which excludes from employment applicants or employees because of pregnancy is in prima facie violation of Title VII." In its revised guidelines under Title VII Amendments in the Pregnancy Discrimination Act, approved in October 1978, the EEOC reemphasized this guideline.<sup>3</sup> For UI purposes, it is necessary to determine claimant availability only, not work availability.

### Maternity leave

Maternity leave is provided by some employers, sometimes as part of a collective bargaining agreement. Like other earlier protections provided for working women, maternity leave has sometimes been used against women's best interests. Some courts have held that workers on maternity leave in accordance with collective bargaining agreements have voluntarily left work without good cause attributable to the employment. As a result, benefits were not payable until the woman returned to work and was later separated for a nondisqualifying reason. A second result was that a woman who applied to return to work before her leave expired, but was turned down, could not collect benefits.

Occasionally, there were successful challenges to State policies. In 1976, just before the Federal pregnancy standard was passed, a Federal court ordered the Michigan Employment Security Commission to reconsider all claims denied between July 1965 and July 1974 on the basis of employer policies or union contract provisions that prevented women from working beyond a specified point in their pregnancy (*UAW v. Taylor*, U.S. District Court). Among the appeals cases that followed was one in which a supervisor forced the pregnant claimant to leave work without notifying her that the company had a leave of absence policy. The referee in this case decided that "the claimant was, in fact, placed on a maternity leave of absence by action of the employer . . . under . . . circumstances that established that the leave was 'mandatory' in nature."

### Recommendations of the 1960's commissions

Two presidential commissions appointed in the 1960's to explore subjects of interest or concern to women, recommended, through their special task forces on social insurance and taxation, that discriminatory provisions be repealed by the States. The following statement was included in their unemployment compensation recommendations:

Disqualification from unemployment compensation in respect to pregnancy and maternity should be based on reasonable tests of the ability and capacity of the individual to work and should not be determined by arbitrary time periods before and after the birth which do not fit the variation in physical ability of women workers, in types of job and in working conditions.

In the early 1970's, the DOL began urging State agencies to work with their legislatures to repeal discriminatory provisions. By the end of June 1975, the number of States with special pregnancy provisions had been reduced to 19.<sup>4</sup> During congressional consideration of the Federal pregnancy standard, the number of States was reduced even further—to 13 States by August 1976. The reduction occurred in response to legal actions, to the increase in the number and percentage of women in the labor force, and to public

recognition of the inequities faced by women—the same factors responsible for the Equal Rights Amendment. A November 1975 Supreme Court decision declared unconstitutional a Utah provision that denied benefits to pregnant women during stated periods.<sup>5</sup> The decision left open, however, the more basic question of the constitutionality of provisions disqualifying women separated from work because of pregnancy.

## **The Federal Pregnancy Standard**

Congressional action finally resolved the question of pregnant women's eligibility for UI. Public Law 94-566, the Unemployment Compensation Amendments of 1976, was the culmination of nearly 2 years of effort by the Congress, the DOL, the States, and representatives of management and labor. The 1976 amendments contained the following provision, to become effective January 1, 1978: "No person shall be denied compensation under such State law solely on the basis of pregnancy or termination of pregnancy."<sup>6</sup> Debate and negotiation had occurred at every stage of the legislative process, but no change occurred in the pregnancy standard once the bill (H.R. 10210) was reported in October 1975 by the Subcommittee on Unemployment Compensation to the House Committee on Ways and Means.

The DOL was responsible for advising and cooperating with State administrators in implementing the 1976 Amendments.<sup>7</sup> The DOL advised the States that any provision relating specifically to pregnancy in determining entitlement to benefits must be deleted from the law, and that entitlement to benefits of pregnant claimants had to be determined on the same basis and under the same provisions applied to all other claimants.

The DOL further advised States that no specific affirmative provision was necessary, although such a provision should be added under certain circumstances. A State UI law might not have provisions conflicting directly with the new pregnancy standard, but might still contain other provisions that could be interpreted as inconsistent with the standard. In the Mississippi law, for example, marital, filial, and domestic circumstances are not good cause for voluntary leaving. Mississippi, therefore, added a statement that "pregnancy shall not be deemed to be a marital, filial, or domestic circumstance." Nine jurisdictions enacted affirmative legislation: Arkansas, the District of Columbia, Iowa, Mississippi, New Jersey, South Dakota, Tennessee, Texas, and the Virgin Islands.

Finally, the DOL said that a State was not prohibited from treating a pregnant claimant more favorably than other claimants, but more favorable treatment of a specific class of women might well raise other issues of discrimination.

## **How the Pregnancy Standard Is Being Administered**

### **Summary of appeals cases**

To assess how the States are applying the Federal pregnancy standard, more than 200 pregnancy appeals cases have been reviewed by the authors with the assistance of two other retired DOL staff members. This review is the first in-depth look at pregnancy cases since the Federal pregnancy standard took effect on January 1, 1978.

The cases were obtained by screening all appeals cases received by the DOL in March and April 1979. Thousands of cases received from most States were screened and all cases involving a pregnant claimant were pulled. There were at least several pregnancy cases from each State among the appeals cases sent to the DOL. Some pregnancy cases had to be discarded because the decisions predated the standard. (One of these was used, however, for illustrative purposes in this report.)

These cases do not represent a scientifically selected random sample, but they do reflect practices in large and small States across the country. Tentative conclusions can be reached, based on the cases reviewed. No attempt has been made to highlight "good" or "bad" cases.

Enactment of the pregnancy standard was not expected to result in benefits for pregnant women with recent work experience. This assumption was based on the experience of States like New York with no statutory provisions denying benefits to pregnant claimants, and the assumption has proved to be correct.

Most of the States that restrict good cause for leaving to work-connected reasons deny benefits to pregnant women as well as to other claimants whose reasons are personal or family-related. But despite these limitations, more pregnant women are receiving benefits now than received benefits before the pregnancy standard, because appeals referees are required to look beyond the pregnancy factor.

In reviewing the cases, the authors found confusion over the term "maternity leave of absence." Generally, this appears to have been an unpaid leave treated by the referees as though it were paid. When a pregnant employee could not or should not have done her regular work, she might have been granted maternity leave. Frequently, this leave did not guarantee that she would get back her regular job. This problem is, or should be, a problem of the pregnant employee, her employer, and the EEOC. If the employer handles sick or disability leaves in the same way, then the pregnant employee has no remedy. This question should not, however, enter into the decisions on UI. It may be noted that the affirmative provisions of two States—Arkansas and Iowa—do refer to maternity leave.

The pregnant woman who wants to work but should not do her regular work, should have the opportunity to look for a job suitable to her temporarily changed status. While making reasonable search efforts, she is entitled to wage compensation on the basis of her prior work and wages.

For this discussion, pregnancy separations have been divided into six categories.

1. The pregnant woman is laid off for lack of work, either as an individual or as part of a group.

2. The pregnant woman must take a maternity leave or a sickness or disability leave at a time and for a period determined by employer policy.

3. The pregnant woman takes medical leave at her option, because she is unable or unwilling to work, or because she cannot do her regular job and her employer has no work suitable to her present status.

4. The pregnant woman leaves her job because she is unable or unwilling to work, or because she cannot do her regular job and the employer has no work suitable to her present status, but she does not take available leave, nor does she explore the possibility of leave.

5. The pregnant woman works for a company that has no maternity or sick leave policy, and so she leaves because she is unable or unwilling to work, or because she cannot do her regular job and the employer has no work suitable to her present status.

6. The pregnant employee quits, or is discharged, for reasons other than pregnancy.

In the discussion of these six categories, a few appeals cases will be described for each category. It should be recognized that some cases may apply to more than one category.

*Lack of work.* Prior to the enactment of the pregnancy standard, many pregnant women were disqualified from receiving UI benefits because they had been laid off during economic slack periods. The pregnancy standard was aimed chiefly at this situation, and the success of the standard is proved by an almost complete absence of this kind of case among the cases reviewed.

The unfairness of this kind of disqualification was demonstrated in the *Orner* case in Maryland.<sup>8</sup> A harpist employed 14 years by the Baltimore Symphony was denied benefits because she was pregnant when she filed her claim during the summer layoff; other members of the orchestra were paid benefits. She returned to the symphony in September and continued performing until her baby was born in November. The Maryland pregnancy provision, which denied benefits during the last 4 months of pregnancy, was found unconstitutional because it denied the equal protection of the law guaranteed by the Fourteenth Amendment.

A Massachusetts appeals decision of June 2, 1977, illustrates how a layoff situation has been handled since

the passage of the pregnancy standard. (Although this decision predates the pregnancy standard [Massachusetts had no pregnancy provision in 1977], the case is consistent with "post-standard" practice.) A pregnant stitcher in a shoe factory was laid off for lack of work. Due to a problem of child care for her other children, she had limited her availability to first-shift work and was denied benefits. Later, her mother agreed to babysit so that the woman could work either shift. At the initial hearing, she testified that she had applied to only two places for work during her unemployment. At the hearing before the Board of Review examiner, she explained she had not sought other work because she felt it would be unfair to accept a new job, only to leave a short time later when recalled by her former employer. The June 2 decision affirmed the denial of benefits, noting that she had been recalled March 16, 1977, and was employed at the time of the final hearing. The reviewer's reaction to this case was that denial for unavailability is appropriate, yet a question remains: would the referee in a State like Michigan scrutinize the job search of an auto assembly line worker on a temporary layoff due to model changeover and then deny benefits if those efforts were judged insufficient?

*Mandatory maternity leave.* Two cases involving mandatory leave dictated by employer policy, one in Florida and one in Illinois, involve airline stewardesses.<sup>9</sup> In both cases, referees held that the claimants were unavailable because they had failed to search for work. The Illinois claimant said she had not searched for work because she had not been told she had to. The Board of Review affirmed the referee's decision. The Florida claimant said she had not sought work because a claims person advised her it was not necessary to do so on a temporary layoff. In appealing an adverse decision on September 19, 1978, she stated she had sought employment from six different employers: three temporary agencies, two airlines, and a news advertiser. The referee's decision of October 6, 1978, was reversed by the Unemployment Appeals Commission in a unanimous decision, which stated that the referee

incorrectly reasoned that the claimant, by limiting her job search to temporary positions, has placed an undue restriction on her availability for work. The real test of whether the claimant is available for work is whether she has been engaged in a search for work reasonably calculated to find employment within the job market in which she is searching. There is no absolute rule that an individual solely seeking temporary employment cannot be realistically attached to the job market. The facts of each case must be analyzed to determine whether the individual's efforts are sufficient to demonstrate that the individual has the intent to become reemployed and is doing those things reasonably calculated to find a job.

*Voluntary medical leave.* Cases from Georgia, Connecticut, and Indiana illustrate the general practice that

referees look more closely at claimants who request available maternity leave than at claimants who are placed on maternity leave as a matter of employer policy.

In the Georgia case, the employer appealed an administrative determination that allowed benefits to a claimant who had been on maternity leave since April 1978. While no return date was set, the employer stated a 4- to 6-week leave was usual. The claimant's doctor advised against returning before September 15, 1978, because the claimant had had twins and was breastfeeding. Although the employer had said she could have returned to work September 15, the claimant was contacted in June and asked whether and when she would return to work. She responded that she would quit her job, thinking the call was aimed at informing her she was discharged because she could not return to work, though "the individual never actually said that she was being discharged," and the claimant did not specifically ask. The claimant was disqualified for quitting without a work-connected cause, under the Georgia law. The employer's tax account was relieved of charges through the fourth quarter of 1978. The claimant was charged with repayment of benefits received during the disqualification period lasting until she returned to work and had earned eight times her weekly benefit amount in bona fide employment.

In the Connecticut case, a safe-deposit attendant in a bank, working from 8:30 a.m. to 4:00 p.m. each day at \$159 weekly, went on optional maternity leave October 28, 1978, gave birth December 18, 1978, and was permitted by her physician to return to work February 5, 1979. Because her former position had been temporarily filled, and because she had experience as a bank teller, the claimant was offered a comparable position temporarily as a teller. She refused the offer because she would be required to work 1 or 2 hours beyond 4:00 p.m. on those occasions when her account failed to balance. She believed the extra hours made the work unsuitable for her. The appeals referee affirmed the decision of the administrator denying benefits on the issue of refusal of suitable work.

In the Indiana case, a pipe fitter in a fiberglass concern obtained maternity leave beginning April 24 and extending until 90 days after delivery (expected on November 17, 1978). The employer appealed the initial determination, holding the claimant able, available, and actively seeking work for the week ending April 29, 1978. The referee's decision quotes regulation 815 as follows:

Where an individual takes voluntary leave of absence with consent of the employer . . . no benefit or waiting period weeks may be accumulated during such period, unless such individual terminates his leave of absence by notifying his employer and making himself available for work.

A leave of absence due to pregnancy granted to an individual by an employer pursuant to the employer's rule or pursuant to the terms of a collective bargaining agreement shall be deemed terminated on the day and date following such pregnancy when such individual again becomes mentally and physically able to work and available for work and established such ability to work and availability for work.

The referee's decision stated, "In this case the evidence indicates the claimant is on a maternity leave and *is, therefore, unavailable*" (emphasis added). The referee then reversed the initial determination, holding the claimant "unavailable and not making an effort to secure work the week ending" April 22, 1978. No other facts are given in the decision, such as whether the claimant was being paid during her leave or on what evidence the referee based the decision that the claimant was not making an effort to secure work.

*Voluntary quits without leave.* In a sense, this is a catch-all category for many voluntary quits that are pregnancy-based. Three cases illustrate the situation of the claimant for whom leave is available but not elected.

In an Oklahoma case, an inspector and assembler left work on March 31, 1978, on the advice of her physician, because the work was too heavy and the fumes bothered her. Leave was available, but she did not request it because she did not know if she could return within the allowed leave period of 6 months. When her child was born on August 22, 1978, her doctor told her she was able to return to work, but she did not go back to her employer. The referee's decision stated that the Board of Review has "a rule that one who leaves work due to pregnancy must show by the report of competent medical authority that it was necessary to leave work, must make a reasonable effort to maintain her employment attachment by requesting leave of absence, if the employer grants such leaves, and she must make application to return to work upon recovery of health." Because the claimant did not request leave to protect her job and did not attempt to return to work for the employer after being released, and was able to work, the referee held that she left without good cause connected to the work and denied benefits until she had become reemployed and earned 10 times the weekly benefit amount she received.

In a similar case in Pennsylvania, the referee's decision was reversed and benefits were granted after the claimant appealed a Board of Review order of October 1, 1976, to the Commonwealth Court. The Court remanded the case for further testimony to the Board of Review, which in turn referred the case to a referee acting as a hearing officer for the Board. In a decision of December 6, 1978, the Board then vacated its October 1, 1976, order. The claimant, a clinical nurse in the Philadelphia Children's Hospital, had worked

2½ years alternating on all three shifts, her last day being December 8, 1975. On doctor's advice, she had worked part-time during the last year, 20 to 21 hours a week, due to an ovarian cyst. On doctor's advice, she was allowed to return to full-time work January 19, 1976, with these restrictions: no night work, no work with children with contagious diseases, no work with prolonged standing without breaks, morning and afternoon 15-minute breaks, and an hour for lunch. The employer was unable to provide work meeting these specifications and offered a conditional leave of absence. The claimant refused because she wished to seek other employment. She was able and available for work from 8 a.m. to 4:30 p.m., for which prospects were poor in her labor market area in hospitals, but good in nursing homes. She also applied for sales positions. Her baby was delivered July 14, 1976. In the final Board decision, the claimant was held to have met the burden of showing, under requirements of the Pennsylvania law, that she voluntarily left work for necessitous and compelling reasons. She also met the test of being genuinely and realistically attached to the labor market, the Board said, relying on testimony of a Bureau representative commenting on conditions in her labor market during the period in question and applying principles in the case of *Tokar v. Unemployment Compensation Board of Review* (Pennsylvania Commonwealth Court, 1978).

In a Virginia case, a woman left her work at a supermarket February 11, 1978, because she was pregnant, without requesting a leave to protect her job. After delivery of her baby, April 8, 1978, she reapplied to her former employer, but was told no work was available. Neither the claimant nor the employer appeared at the hearing, though both were duly notified. The claimant was held to have voluntarily quit her job due to pregnancy. No medical evidence was submitted to establish that her work was detrimental to her health. The referee, therefore, concluded that she left work voluntarily without good cause, and her disqualification determination by the deputy was affirmed.

**No leave policy.** This section describes decisions made in cases in which pregnant claimants were not able to take advantage of a maternity or sick-leave policy, because their employers had none, but who nevertheless had to leave their jobs.

In a Rhode Island case, a secretary who was the only employee in a local insurance agency, advised her employer in May 1978 that she was pregnant, that her expected delivery date was in October, and that she would work until September. The employer stated that it would have been impossible to have given the claimant a leave of absence. The employer advertised for a replacement who was hired in August: the claimant last worked September 22, 1978. She was permitted

by her doctor to return to work 6 weeks after childbirth. Referee held the claimant voluntarily left her job with good cause, and benefits could not be denied.

In a Texas case, the Commission affirmed the decision of the referee on January 31, 1979, which followed the employer's appeal, to allow benefits. The claimant's work in a variety store involved lifting, pushing, or long periods of standing. Her doctor advised her against performing these duties because of her pregnancy, but told her she could perform light work. The claimant was laid off because the employer had no suitable light work. The referee concluded that the layoff did not constitute a discharge for misconduct connected with the work. Under the Texas law, which contains an affirmative statement of the Federal pregnancy standard—"benefits shall not be denied to an individual solely on the basis of pregnancy or termination of pregnancy"—the claimant's separation was determined not to be grounds for disqualification.

**Reasons other than pregnancy.** Cases involving discharges need special scrutiny by agencies and referees to protect the benefit rights of pregnant claimants.

In a Montana case, a secretary for a travel service was discharged November 13, 1978, for unsatisfactory work. When she filed for benefits effective November 12, 1978, she was in her ninth month of pregnancy. Her baby was born December 17, 1978. She made three unsuccessful applications for work, between November 12, 1978, and December 16, 1978. She testified she would follow her doctor's instructions not to work until her baby was 4 weeks old. As she had made only three applications for work and "most, if not all, employers would not be willing to hire her because of her physical condition," the referee held her unavailable for work and not seeking work.

In an Ohio case, a telephone directory assistance operator was discharged under company policy that absences in excess of 4 days a year are grounds for disciplinary action. The claimant had been placed on final-warning status on August 16, 1976, because of unsatisfactory attendance. She became pregnant in September 1976 and took a maternity leave of absence, returning to work September 20, 1977. Company records reflect that she was absent 3 days in January and February 1978 due to her infant's illness, which was documented. Because she had been on final-warning status since August 16, 1976, she was dismissed for unsatisfactory attendance. Under Ohio law, discharge for unsatisfactory attendance due to bona fide medical reasons has been uniformly interpreted to be discharge without just cause. No disqualification was therefore imposed, and the company was chargeable.

In a South Carolina case, a cashier in a fast food outlet was pregnant and could no longer wear the required employee uniform. No evidence was submitted that her work was unsatisfactory, that she had a bad

attendance record, or that any part of her performance could be characterized as misconduct. On February 15, 1979, the referee held that she was eligible for benefits without disqualification, because the employer had failed to prove misconduct on her part.

### Testimony of Tamara Bavar

Tamara Bavar, Chairperson of the Unemployment Insurance Task Force, United Auto Workers, Region 1B Women's Council, appeared before the National Commission on Unemployment Compensation at its Detroit meeting in March 1979 to report on the results of a survey of female automotive workers' UI experience. At the time of her testimony, 1,400 questionnaires had been returned of 12,000 mailed or handed out at branch offices of the Michigan Employment Security Commission. Based on these returns and on her own and others' experiences, she made the following statements and recommendations with respect to UI system problems related to pregnancy.

On the physical ability of pregnant women to work, she said, "Employers and agencies treat pregnant women with less consideration than they treat men with physical conditions which might impede their job performance." She recommended that when a pregnant worker cannot do her regular work but is generally able and available for work suited to her situation, the employer should find other work for her, in the same way that the employer should find other work for a man who is unable to do his usual job because of an injury, such as a hernia. If a pregnant woman is laid off because she is physically unable to do her last job, she should not be denied benefits as long as she is able to do other work and is generally available for work.

On the topic of women forced out of work due to pregnancy, she stated that "employers force women out of work due to pregnancy" and that "supervisors give pregnant women harder jobs to force them to take so-called leaves of absence." She recommended that legal remedies be applied under the civil rights law in the first situation, and UI benefits should be paid in the second. Further, she stressed that the Michigan Employment Security Commission should take the necessary steps to assure that local offices administer the UI law properly on voluntary and maternity leaves.

### Suggested Options

Of all the issues affecting women in the UI system, the pregnancy issue appears to be the one on which the greatest progress has been made. Because of the Federal pregnancy standard, States must now consider each pregnant claimant individually and week by week. The success of the standard may indeed point the way

toward more effective handling of some of the other issues.

The appeals cases show that not all of the problems connected with pregnancy have disappeared. The new Pregnancy Discrimination Act (Public Law 95-555) will help eliminate some difficulties that are based on the employer-employee relationship, but not those difficulties based on payment of benefits. Appeals cases from around the country show that treatment of pregnant claimants differs widely from State to State and from one appeals tribunal to another. Further guidance for the States would assure a more consistent approach.

The DOL should study and review each State's policy and procedures, in consultation with the State agencies, to be sure that the Federal pregnancy standard is being implemented. The DOL should issue new policy guidelines to deal with such areas as treatment of maternity leave, voluntary quits involving pregnancy, and discriminatory devices used by some employers to circumvent the spirit, if not the language, of the statute.

This course would not require legislative action. Guidelines could be developed and implemented in a relatively short time, based on research done for this report, and on investigation and cooperation between the DOL and State agencies.

### Notes

1. *Unemployment During and After Pregnancy* (New York State Department of Labor, Division of Employment, Bureau of Research and Statistics, October 1959), pp. 12-14.

2. Ruth Entes, *A Study of Pregnant Women as Unemployment Insurance Claimants in New York State* (New York State Department of Labor, Division of Employment, Research and Statistics Office, November 1963).

3. See *Federal Register*, April 20, 1979, p. 23,804.

4. *International Women's Year Special Supplement*, Report No. 304 (U.S. Department of Labor, Manpower Administration, Unemployment Insurance Service, 1975), pp. 11-12.

5. *Mary Ann Turner v. Department of Employment Security and Board of Review of the Industrial Commission of Utah*, 96 S. CT. 249 (1975).

6. *Federal Unemployment Tax Act*, sec. 3304(a) (12), as amended. "Such law" refers to each State's unemployment compensation law. Inclusion in this section of the Federal law means that failure by a State to conform to this requirement can result in denial to employers of that State a tax offset credit against the Federal tax.

7. See *Draft Language and Commentary to Implement the Unemployment Compensation Amendments of 1976-Public Law 94-566* (U.S. Department of

Labor, Employment and Training Administration, Unemployment Insurance Service, undated), p. 62. Also see *Supplement #1* to the above, Dec. 7, 1976, p. 26.

8. Rosemarie B. Orner v. *The Board of Appeals, Employment Security Administration, Department of Employment and Social Service*, Maryland Superior Court, Baltimore City, July 28, 1972.

9. Under the new *Pregnancy Discrimination Act* (Public Law 95-555), approved Oct. 31, 1978, an employer cannot have a rule prohibiting an employee from returning to work for a predetermined period after delivery. See question 7, of the questions and answers under the Act in 29 CFR Part 1604. *Federal Register*, April 20, 1979, pp. 23, 804-23, 809.

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# The "Work Test": Goals and Administrative Practices

David W. Stevens

The general public initially accepted unemployment insurance as an earned right. When the unemployment insurance (UI) program was established in the mid-1930's, it was in direct response to public demand for replacement of lost earnings. Coverage was designed to include only persons "who would, but for their inability to secure suitable work, be working and earning their living."<sup>1</sup> Seasonal workers and those with unstable employment histories were specifically excluded as having suspect labor force commitment.

Today, public concern centers on the moral hazard implied in UI. As coverage has been extended to cover more groups within the labor force, the right to insured unemployment increases, in the public mind, the incidence of unemployment. A presumed blurring of the former sharp distinction between regular work commitment (read "deserving") and irregular commitment (read "undeserving") has produced social and administrative demand for continued testing of the eligibility of UI claimants. However, the desire to test claimant sincerity and willingness to accept available employment is not matched by feasible administrative procedures to carry out this desire, at least not without jeopardizing other equally important social objectives.

## Definitions

All State laws provide that to remain eligible, a claimant must be able to work, available for work, and free from disqualification for cause including failure to actively seek work or refusal of available suitable employment. This constitutes a "work test" criterion for all claimants.<sup>2</sup>

The lay public's concept of the above UI work test is rarely accurate, since their concept centers on refusing a bona fide job offer. A claimant can be declared ineligible long before ever receiving a job offer. Most claims are denied for prior job separation without good cause. Since this occurs before ever filing a claim, it cannot be included under the rubric of a work test. Similarly, active search regulations are related to test-

ing of availability for work but must be distinguished from refusal of work.

This report focuses only on the desire to test claimant willingness to accept available suitable employment. Obviously, *willingness* to accept can be determined only in the presence of an *opportunity* to accept. The opportunity to accept a job requires claimant awareness of a bona fide offer. Even this awareness does not ensure that the "work test" will come into play: it is still necessary for the appropriate administrative agency to know about both the offer and the claimant's response to it.

Any claimant action that occurs prior to receiving a job offer cannot properly be included under the "work test" umbrella. Therefore, a claimant's failure to respond to an attempted job referral by a local employment security (ES) office is an availability issue, not a refusal of work issue. Similarly, acceptance of a job referral from an ES office, followed by nonappearance for a job interview, is an availability issue. Finally, misbehavior during a job interview, which occurs before an offer is extended, must be excluded from the refusal classification, since there has been no opportunity to refuse. Confusion in these respects lies at the heart of many misunderstandings about the feasibility of conducting a routine "work test." Availability is a status, while refusal is an action.

A claimant's decision to accept or refuse a job offer depends, in part, on the *suitability* of the job offered. The States' handling of this term varies widely in the administration of their respective UI statutes and administrative regulations. Several issues should be highlighted. First, suitability determinations should be uniformly applied to individuals with similar prior work history and current circumstances. Second, consideration must be given to redefining suitability after an elapsed duration of a claimant's unemployment or to broadening the class of suitable jobs as time passes. Third, consideration should be given to defining suit-

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ability in relation to fluctuating economic conditions in the pertinent labor market(s). These three issues are important for both client equity and administrative effectiveness. It can be demonstrated that claimants' expectations about the quality of a possible job offer can determine their willingness to expose themselves to ES labor exchange services. Since ES job referral is the only documentable means of creating an opportunity to accept or decline a job offer, it is important to offer these referral services so that the balance of favorable versus unfavorable outcomes is not weighted against the claimants.

Two important points have been made. First, the UI "work test" has been interpreted to refer only to the administrative procedures that actually provide a claimant with an opportunity to accept or decline a bona fide job offer. Any other questions regarding continuing eligibility fall outside the boundaries of the "work test" per se. And second, the definition of suitability of work plays an important role in administrative practices and the claimant's response to these actions.

## **A Conceptual Basis for Examining Administrative Practices**

Five topics are examined in this section to provide an adequate background for discussion of actual administrative practices. These five topics are: the distinction between a *desire* to impose a test of claimant willingness to accept available unemployment and the *ability* to do so; a need to identify the winners and losers involved in different administrative strategies in imposing a "work test"; conflicts between the labor-exchange responsibilities of local ES offices and the mandate to administer enforcement tasks in conjunction with the UI "work test"; the difference between individual preferences and behavior and their social counterparts; and the definition of a boundary between those who are judged deserving and those who are to be declared undeserving.

### **Administrative desire versus routine capability**

Thirty years ago, Ralph Altman stated a rationale for the UI availability test as follows:

The existence of the availability requirement in the unemployment compensation laws reflects certain basic assumptions: (a) Not only the past but the present labor-force attachment of claimants should be ascertained. (b) It is feasible to make a satisfactory determination of labor-force attachment. (c) The unemployment compensation agency, with the aid of the employment service, is the proper agency to make such a determination. (d) Availability can be determined as a matter of routine without an exhaustive investigation in every case. *Although acceptable, these assumptions do not have the compelling force of axioms.*<sup>3</sup>

Each of these four assumptions applies with equal force to the work test issue. The normative judgment that willingness to accept available (suitable) work is an appropriate condition to require for continued UI benefit eligibility is accepted without further deliberation. The feasibility of making a routine administrative determination of claimant willingness is the subject matter of this paper, and the designation of the UI and ES agencies as collaborative partners in conducting the work test is examined within this context.

The tension between administrative desire and performance arises from a separation of those who stand to gain from a stringent application of the test, and those who incur most of the costs associated with the administrative procedures. Even when observation is restricted to the cost-conscious organizations, there is still a tension between immediate and long-term results, since the work test is usually assessed on the basis of immediate outcomes.

### **UI work test winners and losers**

A cursory analysis of the potential winners and losers in a stringent work test often leads observers to conclude that employers and the consumers of their products and services would be the winners, and potential abusers of the UI law's intent would be the losers. However, the issue is much more complex than this.

Some employers might be expected to benefit from a stringent work test by virtue of expanded access to job applicants, which would reduce the costs incurred to reach a given work force level. However, some of these same employers, and others, have an interest in maintaining an available pool of former employees who can be drawn upon reasonably quickly if economic circumstances warrant recalls. Employers who interview, and perhaps hire reluctant applicants, will incur costs that would not have arisen in the absence of the UI mandate.

The following classification provides a handy scorecard for the winners and losers in the stringent application of the UI work test:

- *claimants*, who must evaluate compliance with work test conditions in the context of their long-term earnings and employment opportunities;
- *previous employer(s)*, who must balance their intention to recall former employees against a desire to take advantage of job applicants who might otherwise have declined job offers;
- *local ES offices*, which are burdened by a direct interference with the desired labor-exchange environment in which voluntary action would be promoted;
- *local UI units*, which find that the administrative determination process and possible adjudication proceedings interfere with their ability to process claims in an efficient manner;

- *interviewing employers*, who exhibit a distinct distrust of job applicants whose presence may reflect forces in addition to a desire to secure the job in question;
- *the rest of us*, who have an interest in productivity, the cost of products and services consumed, and equitable treatment by our public institutions.

### The local ES office dilemma

More than 40 years ago E. Wight Bakke provided a definition of the conflicts inherent in ES efforts to wear more than one hat simultaneously:

The constant reminder to the unemployed and to the public that the receipt of insurance benefits is dependent on efforts to seek work is of the greatest importance . . . [yet] insofar as [ES] exchange officials wish to build an efficient labor supply service, about the only evidence of willingness to work they can provide is certification of periodic registration of the unemployed at the exchange.<sup>4</sup>

A similar conclusion is stated in the final report of the British Royal Commission on Unemployment Insurance, which convened nearly 50 years ago.<sup>5</sup> These statements have been elaborated upon in a number of recent studies of UI, Aid to Families with Dependent Children (AFDC), and Food Stamps work test issues.<sup>6</sup>

The source of the current local ES office problem is clear; groups that seek an effective labor-exchange service and those that desire a stringent UI work test procedure administered through local ES offices are almost mutually exclusive. The local office manager serves at least two masters. The solution to this problem is less obvious, precisely because of the diversity of interests and the political clout of those who support each one.

### Individual versus social preferences <sup>7</sup>

Lester Thurow has drawn a distinction that is useful for our purposes: individuals have preferences about what the ideal rules should be, but they also have preferences about what their own behavior should be given any particular set of rules. In this context, a person can simultaneously seek a change in the rules while taking full advantage of the current rules.

For example, it is not self-contradictory for employers to join collective lobbying efforts to tighten continuing eligibility requirements and impose stern sanctions for noncompliance, while simultaneously reporting their own terminees as having known recall dates when it is uncertain whether the individuals will ever be recalled. Similarly, it is not self-contradictory for ES management to lobby for removal of their mandated enforcement responsibilities while serving claimants in ways that are consistent with current resource allocation incentives. And it is not self-contradictory for individual citizens to complain about UI system abuses,

while periodically participating in one or more abuses themselves.

If we are to understand current practices and produce useful recommendations for refinement of these procedures, it is absolutely essential that attention be devoted to the forces that come to bear on the relevant parties, now and under different hypothetical circumstances.

### Dividing the deserving and undeserving

Measurement of *abuse* is not a simple matter. Long ago, Joseph Becker wrote:

The problem involved is to estimate what claims the agency *would* have disqualified. Disqualifications are the material with which one must work. But not actual disqualifications—hypothetical disqualifications. Actual disqualifications disclose hypothetical violators: those who would have drawn benefits if they had not been disqualified. Hypothetical disqualifications measure actual violators: those who were actually paid but who would have been disqualified if the agency had known all the relevant facts.<sup>8</sup>

Judgments about the effectiveness of current work test procedures are tied to an estimate of these hypothetical disqualifications: how many claimants who are unwilling to accept available (suitable) work continue to draw UI benefits because current work test procedures fail to detect them?

There is another aspect of the question just posed that should not be overlooked: how many claimants who *are* willing to accept available (suitable) work cancel their UI benefits because the personal costs of compliance are thought to be too high. It is not readily apparent which group warrants priority consideration in the design of a work test—actual violators who are not in compliance, or those who would be in compliance but choose not to continue eligibility.

The fundamental issue is this: the eligible claimant population can be adjusted to *any* desired size, by simply increasing or relaxing the burdensomeness of eligibility requirements. So, there really is no question whether a work test, or any other continuing eligibility requirement, can be performed. The only question is whether the requirement can be carried out consistent with other efficiency and equity considerations. Since the relative importance of these considerations and the make-up of the population considered would be expected to vary along a number of dimensions, the boundary between deserving and undeserving cannot be defined independent of the relevant unit of observation.

### Current Administrative Practices <sup>9</sup>

Assuming that initial monetary and nonmonetary qualification requirements have been met, the normal first

step in the work test is claimant registration with a local ES office. Claimants who have written certification by their former employer that recall is anticipated within several weeks or normally secure work through union hiring-hall auspices are not required to pass a work test until their deferral of ES registration status is changed. This immediately raises questions. Are equally circumstanced individuals treated alike? The answer depends upon the accuracy and stability of former employers' declarations that claimants can expect recall.

The second action involves the claimant either being referred to a job at the time of initial ES registration, or being asked at some subsequent time to return to the office to receive such a referral. (In some cases, a claimant will be called and told to go directly to a prospective employer's location, without the intermediate step of picking up a referral card at the ES office. This diminishes the likelihood that the work test can be completed.) Many claimants are not referred to a job opening by the local ES office. The percentage referred varies with economic conditions, industrial and occupational structure of the local labor market, and the presence of other placement intermediaries. Since subsequent stages in the work test procedure are dependent upon this prerequisite step, it is important to determine what the consequences of this unevenness in job referral practices might be, particularly with regard to the equity of treatment of similarly circumstanced claimants. This question will be explored later.

Failure by a claimant to respond to an attempted call-in by the local ES office for job referral creates an availability question which could result in an administrative determination by the UI unit about the claimant's continuing eligibility. A claimant in this situation is terminated from the work test process.

The third step is claimant acceptance of a job referral. Refusal of a job *referral*, however, is not the same as refusal of a job *offer*. It is important to remember that there may be legitimate cause for a claimant's failure to appear in response to call-in attempt, or to contact a referral employer.

The fourth step, appearance at the designated job referral site, in the necessary sequence, cannot be interpreted as synonymous with receiving a job offer. The normal practice in a local ES office is to refer more than one person for each job opening, giving the employer a selection of candidates. This means that job aspirants with identical qualifications have a probability of less than one that a job offer will be received. In fact, it is routine practice to refer three individuals for each opening, unless the listing employer has specified a different number. Appearance for an interview is not tantamount to receiving a job offer simply because the local ES office is usually not the only source utilized by employers.<sup>10</sup> Competition for a job opening will likely extend well beyond the ES registrant pool.

The fifth step in the work test is the bona fide receipt of a job offer. This is actually the first opportunity the claimant has to demonstrate willingness to accept a job. Any point of attrition that occurs in the first four stages may create an availability issue, but not a refusal of work or continuing eligibility issue. The awareness by UI management of the job offer extended to a claimant depends upon the verification procedures adopted by the collaborating ES unit.

The sixth step occurs only if the claimant declines the job offer. Acceptance of the job obviously interrupts the chain of events. Assuming that the claimant has turned down an opportunity to return to work, it is necessary for this decision to be made known to the local ES office. This may occur through ES follow-up, or the listing employer may alert the ES by seeking additional candidates based upon the unwillingness of previous referrals to accept the job offered. However, if neither the local ES office nor the employer take any administrative steps following the claimant's interview, it is unlikely that the refusal will become known to the UI agency.

The seventh step requires the ES office to alert the UI unit to a claimant's refusal of a job offer. There is no independent incentive to perform this administrative function, other than the regulation mandating cooperation.

Finally, the eighth administrative step in conducting a test of claimant willingness to accept work is to determine whether the refusal in question should result in declaring the individual ineligible, and imposing sanctions. Depending upon the claimant's response to the initial steps in this administrative procedure, the adjudication process can be long and costly.

Briefly then, the UI work test procedure involves the UI and ES agencies, the claimant, and at least one employer. There are attrition points in the normal flow of claimants through ES office services that draw away many individuals prior to exposure to a bona fide job offer. Actual refusal of a job offer does not automatically cause an administrative declaration of ineligibility to receive UI benefits. And finally the incidence of the costs and benefits associated with performing the test accrues to different parties.

Several aspects of organizational behavior are crucial to deciding how effective the current work test procedure is likely to be. The first issue concerns the ES referral process, and the forces that influence placement interviewer behavior. The second issue involves careful consideration of the ES role as a labor-exchange intermediary, and what we can infer from this about the exposure of UI claimants to suitable job offers.

In its labor-exchange role the ES is a broker of people and jobs. Local ES office placement rates are a major performance barometer for the public. In this respect, the public agency does not differ from that of a private fee-charging intermediary. The administra-

tive goal is to successfully match a registrant with an employer. Factors that *reduce* job placement would then logically be treated as exclusionary criteria, while those that enhance the probability of a successful match are utilized as selection factors. Effective local ES office performance of the labor-exchange function therefore requires efficient screening of both registrant and employer characteristics and preferences. *Any* administrative interference with the expression of voluntary actions by either job aspirants or employers trying to fill vacancies makes this screening task more difficult to perform, and less likely to produce the desired result.

Under these circumstances, a placement interviewer can be expected to separate job vacancies and registrants with high probability of placement from the entire inventory of job orders and registered individuals. Being unable to serve all clients, the interviewer then creates an imaginary queue based on a high to low probability of achieving a placement transaction, which is, after all, the performance measure for the interviewer.

Where would UI claimants appear in the placement interviewer's line-up? First, "claimant" is not a uniform term. This has been recognized in the administrative decisions made by States to waive mandatory ES registration by those UI claimants who normally secure work through a union hiring hall, and those who have specific expected recall dates within a brief period of time. Still other claimants, who do not qualify for this automatic waiver, have work experience characteristics that lower the likelihood of their placement through ES auspices. One such factor is seasonal layoff. The test of claimant willingness to accept work depends upon how the agency interprets the term "suitable" in such circumstances. Another consideration is how prospective employers will view an applicant of this type. The point then becomes one of conflict between what the ES agency might think is administratively proper, and what makes sense in terms of the placement performance criterion. Another consideration in classifying UI claimants as referral prospects is their earnings record. If the most recent earnings level lies above what is exhibited in the job-order file of the local ES office, the placement interviewer must decide how this gap will affect both claimant and prospective employer behavior. The placement event requires two willing parties, neither of whom is beholden to the local ES office as broker. A mismatch occurs when either unilateral or mutual uninterest arises. Mandated ES referral in high-risk, low-placement-probability cases can be expected to increase the number of mismatches. Intuitive judgments by experienced placement interviewers are replaced by administrative fiat. UI claimants are forced to choose between cooperating in this high-risk search activity and bearing the time, money, and psychological costs of more frequent employer rejection, or jeopardizing continuing eligibility requirements. But, the real threat

to an effective ES labor-exchange role would be employer disenchantment with the ES. Substitution of an administrative desire to test the claimant's real interest in a job for an experienced placement interviewer's judgment exacerbates the problem of referring "unqualified" applicants. This merely raises employer screening costs, heightens concern about affirmative action compliance, and can end in withdrawal from the continued use of the ES. In other words, employers might be expected to react to the work test procedure by withdrawing the very jobs that are essential to the procedure.

In conclusion, mandated actions of any kind make the matching process more difficult. They impose costs on both job applicants and employers. After careful deliberation, it might be decided that these costs are appropriately borne by claimants who are required to demonstrate continuing eligibility compliance. But before making this judgment it is necessary to delve more deeply into the job referral activity itself.

Individual employers want to minimize hiring costs to achieve a given quality and level of work force. The work test veil interferes with this objective for some employers who list job openings with a local ES office. Again, then, we must look inside the referral procedure itself to get a better understanding of what might be expected from UI-ES collaboration in testing claimant willingness to accept work.

It is apparent that labor-exchange brokers exist because information about one's options is imperfect, costly to acquire, and susceptible to obsolescence.<sup>11</sup> Three concepts are useful in trying to understand where the ES fits into this labor-exchange scheme.

Job seekers always have an option to seek a better understanding about jobs already known to them, or to discover new opportunities. The former activity is referred to as search at the *intensive* margin, and the latter action is called search at the *extensive* margin. In the intensive margin, the ES offers only a limited range of information about each job opening that is listed through its auspices. On the other hand, private employment services have cultivated relationships with specific employers that permit them to offer a greater range of information to job aspirants. Informal ties between a job-seeker and employed friends and relatives can produce many details about working conditions, personnel relationships, promotion opportunities, etc., that would not be known to an ES placement interviewer. (Obviously, the severity of limitation on what is known through ES auspices varies with respect to such factors as staff experience and seniority, procedures followed in dealing with the local employer community, and internal organizational structure.)

The importance of the internal/external margin concept is in revealing a structural limit on how much information a local ES office can be expected to provide about any given job opportunity. Yet a UI claim-

ant's continuing eligibility might be jeopardized by a failure to act on an ES job referral which by definition offers little real information.

Some jobs and job seekers are highly uniform in their essential characteristics, while others exhibit greater diversity. The terms used to determine these two classifications are *inspection* elements, whose quality is immediately obvious upon initial observation, and *experience* elements, which must be directly observed for a period of time to determine the appropriate classification to apply, or which might be determined by one or more reliable substitutes for direct observation over time.

A placement interviewer knows whether a registrant is black or white, male or female, young or old, because these are inspection elements (none of which is supposed to matter in the referral decision), but cannot know experience elements such as the lowest wage really acceptable or the types of work setting that would be tolerated. Similarly, the placement interviewer knows the employer's wage offer and job classification (inspection elements), but nothing about coworker attitudes, supervisory quality, or likely stability of employment (experience elements). Obviously, these unobservables are important determinants of the likelihood that a match of employer and job applicant will end in a stable employment relationship.

A third important concept in the labor-exchange intermediary role focuses on how information about job opportunities is actually created. One important category of input is the job seeker's *own time*. At one extreme, an individual can set out to personally call on possible employers with no prior information. In this case, it would be appropriate to say that the only input to the production of job opportunity information is the job seeker's own time. At the other extreme, are *purchased services*. Included in this category would be any actions taken by an external organization on behalf of an individual job seeker. The most obvious purchased service is that offered by free-charging proprietary employment agencies. However, newspaper advertisements, community based organizations that provide job search assistance, and the ES itself all provide information that is paid for by someone.

Two points can be made in the distinction between own time versus purchased services:

- Own time and purchased services are not perfect substitutes for each other in the production of information about job opportunities.
- Individual job seekers have different access to and awareness of these two types of input.

The services of specialized brokers cannot be replicated by the simple commitment of time by most job seekers. Those who rely heavily upon their own energies to reveal job opportunities will not produce the same

results, on the average, as those who resort to purchased services.

The ES was created, in part, to provide broker services at public expense, to be made available to all comers. (There has never been a consensus about what the appropriate boundary between subsidized and private intermediary actions should be, and there is no reason to expect resolution of this tension in the future.)

With the concepts of (1) internal and external margins of job search, (2) inspection and experience characteristics of job opportunities and job seekers, and (3) own time versus purchased service inputs to produce job opportunity information, we can now portray the ES role in testing claimant willingness to accept available employment in a more precise way.

The ES is organized to offer a limited amount of specific information about an incomplete set of all job vacancies that exist at any given moment, which then requires the job seeker to devote time to pursue the opportunity. In other words, the ES operates toward the extensive margin end of the intensive-extensive continuum, toward the inspection elements end of the inspection-experience/characteristics continuum, and toward the own-time end of the own-time/purchased-services continuum. In simpler language, the ES can tell you a little bit about some job opportunities, which then requires your own action to find out more. (This entire section could also be developed from the hiring employer's perspective, and the reader is urged to think about the importance of this perspective in understanding employer willingness to list job openings with the ES.)

What can we infer from this treatment of the ES as a labor-exchange intermediary about the exposure of UI claimants to suitable job offers?

First, the greater the importance of experience characteristics in the job seeker's or hiring employer's decision on whether to pursue a lead, the less likely the ES is to become a viable source of broker service. The ES is not organized to provide this type of specialized information on a routine basis.

How important is this type of information to claimants? The answer to this question depends heavily upon answering two prior questions:

- What value is placed on the alternative uses of time that would be absorbed in pursuing the job opening leads provided through ES auspices?
- What consequences, both favorable and unfavorable, might reasonably be expected to follow a claimant's decision to act upon a lead or not?

A claimant might argue that the time spent traveling to and from the local ES office, waiting at the office for individual placement interviewer attention, and proceeding to prospective hiring establishments in com-

petition with several other ES referrals could be better devoted to other job search activities. To date, this point of view has elicited widely varying administrative responses from State UI agencies. Those who normally rely on a union hiring hall's broker services are exempted from exposure to ES referral activities. In most cases, those who expect to be recalled by a former employer within a specified period of time are also exempted. Over different time periods, and in only some of the States, submission of evidence that employer contacts have been initiated independent of the ES has been required to conform with the active search continuing eligibility requirement. To the best of the author's knowledge, no State accepts total reliance on purchased broker services as sufficient evidence of active search compliance.

A plausible case can be made that some claimants are exercising good judgment when they spend little, or even no, time pursuing job openings listed with a local ES office. Consideration needs to be given to establishing routine classifying factors, which would permit local office personnel to identify those claimants whose time might be better spent in job search activities that do not involve the ES. Normal reliance on a union hiring hall and expectation of recall within a specified period are two examples of such criteria that are already in routine practice. (Again, the employer side of these issues warrants similar deliberation.)

A final observation about the value placed on alternative uses of a claimant's time: the UI agency, the claimant, and society at large would be expected to place very different values on the claimant's time. The UI agency's immediate interest would be in getting the claimant back to work to reduce the immediate financial impact of the insured period of unemployment. Some administrators within the UI system have adopted a more sophisticated view that is closer to the interests of society at large: provide incentives for a claimant to return to work with reasonable dispatch, but recognize the insurance purposes of the UI system, and the presence of a tradeoff between haste in accomplishing an immediate match and the stability of that employment. A claimant's actions cannot be expected to reflect any of these broader organizational and societal forces, which is why the test of willingness to accept available employment has been devised. Even though the receipt of UI benefits is an earned right under stated conditions, the taxpaying public has a compelling interest in the claimant's behavior as long as those benefits are being drawn upon.

What consequences might be expected to follow claimant action or inaction when offered a job lead? If the claimant anticipates that an unacceptable job offer will be forthcoming, the logical action would be to avoid the opportunity. There are several ways in which this avoidance can be accomplished: the claimant can avoid acceptance of a specific job referral from a

local ES office, thereby risking sanctions for nonavailability or failure to engage in active search; the job referral can be accepted, but not acted upon at all, or at least not in a timely manner, again risking sanctions; or, a variety of tactics might be employed during the hiring consideration process itself to assure that an offer will not be forthcoming. While there is no intention here to suggest that any known percentage of the claimant population behaves in this manner, the important point remains that a claimant who wants to avoid jeopardizing continued claims eligibility by failing to accept a bona fide job offer has many opportunities to do so.

The question before us is whether it is desirable and feasible to intervene in this decision process. Given the limited range of information an ES local office can offer about available job opportunities, a claimant would be expected to have a greater incentive to avoid discovery of job opportunities that might prove unacceptable the more stringent the sanctions that are associated with refusal to accept available employment. (Note that in this context stringency covers both the severity of the untoward consequences and the probability that these consequences will occur. A harsh punishment that is rarely invoked will elicit a different response than one that is routinely carried out.)

How important is more complete information about job opportunities for claimants? The importance is conditioned by the severity of sanctions imposed for refusal of a bona fide job offer. Stability in the application of "suitability" provisions and claimant awareness of the circumstances under which the definition of suitability changes soften the rigidity and uncertainty that would be present otherwise. In the absence of clear definitions of suitable work and the compensation that must be accepted if offered, a claimant must be given more details about the opening in direct proportions to the severity of the sanctions for refusal to accept the opportunity. Unfortunately, our analysis indicates that the ES is unlikely to respond to this desire for greater detail.

A second major point is that many categories of jobs are unlikely to even be listed with the ES.<sup>12</sup> This raises questions ranging from the equal protection guarantees accorded all persons to the administrative implications of relying heavily on a limited spectrum of job opportunities as a means to test claimant willingness to accept available work. One's views about the importance of the equal protection issue depend upon how equal circumstances are defined. If, among all claimants, those with certain work histories are more likely to be referred to job openings listed with the ES than are others whose circumstances are identical except for the type of work previously performed, then those who are more likely to be referred are more vulnerable to administrative testing of conformity with

the continuing eligibility conditions of availability, active search, and willingness to accept work.

A third inference emerges from recognition that the value of the claimant's time in the production of job opportunity information varies with respect to the normal hiring procedures in different sectors of the economy. Again, the more emphasis the employer places on experience characteristics, the less likely ES referrals are to be competitive with applicants drawn from some other sources. The administrative question that must be answered is: if we know that claimants who are referred by an ES local office have a low probability of being hired in some situations, can refusal of such a referral be treated as a violation of continuing eligibility requirements?

### **Summary of current administrative practices**

This section has covered two major topics: the actual administrative procedures that are involved in conducting a test of claimant willingness to accept available work, and the forces that influence the placement interviewer's and the local ES office's behavior vis-à-vis referral of claimants to listed job openings.

The procedural sequence has been shown to exhibit a number of potential exit points, each of which must presumably be monitored. The costs and benefits of this monitoring have been shown to accrue to different parties.

Placement interviewers in local ES offices have been shown to seek clear signals of applicant and employer intent regarding the hiring decision. Administrative mandates of any kind interfere with this search for clarity of intent. This does not mean that the mandate is therefore faulty, but it does introduce considerations that are usually not treated in discussions of the merits of a UI test of claimant willingness to accept work.

The organizational behavior of ES local offices has also been shown to exhibit characteristics that limit what can be done by those offices to cooperate in conducting the UI work test. The ES is just one of many labor-exchange intermediaries. The number and characteristics of alternatives have changed dramatically in recent years.<sup>13</sup> The most important observations involve the tradeoff between stringency of sanction and necessity to offer detailed information about job opportunities, and the limited flexibility the ES has to respond to a recognition of this tradeoff.

With this foundation of procedural and conceptual understanding, we can now turn to an examination of some special programs that have been introduced during the last fifteen years to provide job search assistance to UI claimants.

### **Experimental and Demonstration Programs to Assist UI Claimant Job Search<sup>14</sup>**

This section examines pertinent findings and conclu-

sions drawn from four experimental programs conducted between 1967 and 1973 and studies of other more recent administrative practices. The four experimental programs reviewed here are:

- **Claimant Advisory Service Program (CLASP)**, offered in a single Brooklyn, New York, local office over a 10-month period in 1967-68. The intent of this program was to improve screening practices in the UI unit itself, and to offer job search help directly through UI auspices without referral to an ES office.

- **Employability Services to Claimants Program (Five-Cities Project)**, undertaken in Boston, Minneapolis-St. Paul, Phoenix, San Francisco-Oakland, and Seattle during 1969-70. The purpose of these programs was also to offer positive job-search assistance through UI agency auspices, rather than relying solely on the periodic interview that had historically been viewed as an investigative management procedure.

- **Service to Claimants (STC) Program**, offered in St. Louis, Mo., between 1971 and 1973. Again, the purpose of this experimental program was to explore the possibility of providing positive job-search assistance through UI agency auspices in cooperation with the local ES offices.

- **Experimental Labor Market Orientation (ELMO) Project**, conducted in Cleveland, Ohio, in 1970. This program was offered through ES local offices, but its intent was quite similar to that described above; one exception being that the program was not limited to UI claimants.

The CLASP program set out to accomplish two independent tasks: do a better job of classifying claimants at the time they file an initial claim; and, having achieved a better screening procedure, provide some positive job-search help to those who need it. It is important to keep these separate objectives in mind because either could have been done well even if the other failed miserably.

A three-tier classification of claimants was introduced:

- claimants thought to be on temporary layoff and expected to return to work within 10 weeks;
- claimants without apparent severe employability deficiencies that would hamper their return to work, but having no known employment prospects;
- claimants with identifiable employability deficiencies that require counseling and other supportive services.

Only the second of these groups is of major interest for our purposes here. The service provided to those who were classified as not job attached and not in need of employability development services were:

In the job search plan interview for Group II claimants,

the claimant and the claims examiner jointly developed an individual plan of action for the claimant to undertake in looking for a job. Specific steps in the job search were listed for the claimant to follow. If the claimant continued to be unemployed, he discussed at a follow-up interview with the claims examiner his method of looking for work, and the job search plan was modified as needed.<sup>15</sup>

This approach bears a primitive resemblance to the job-finding club approach that has been adopted in many work incentive (WIN) programs around the country, although the peer-support aspect that is central to the WIN concept is missing in the CLASP treatment.

The analysts who studied the results of this approach concluded that over a 27-week followup period, when CLASP claimants were compared to a control group of claimants whose circumstances were identical except that they did not receive the special job search assistance, the stated approach did appear to reduce the duration of benefits received. Refining classification of claimants at the initial filing also substantially reduced the number of ES office transactions recorded on behalf of claimants without having any detectable effect on the duration of benefits received. These conclusions should not be taken out of their proper context. The 27-week followup period truncates observations to an interval that is too short to examine the phenomenon of multiple spells of insured unemployment that might have resulted from the pressure to accept a job.

Based on the promising results achieved in the CLASP program, the national Unemployment Insurance Service (UIS) sponsored the Five Cities projects in 1969–70. The refined classification procedure was adopted, and those who classified as job ready but not job attached were given job search assistance. The analysts who monitored the results of this program, again in an experimental context, concluded that on the average the approach did reduce the period of insured unemployment, but did not reduce the periods of insured unemployment experienced during a benefit year nor the total amount of benefits paid over that interval. These conclusions provide a strong hint that the CLASP followup period was too short. They serve as a flag to warn the casual observer against accepting results that on the surface indicate that the UI agency can rather easily introduce new supportive procedures which will immediately reduce the financial impact of claimants without job or hiring-hall attachments.

The ELMO data collected in Cleveland, Ohio, in 1970–71 are relevant here primarily because they demonstrated two aspects of claimant job search behavior that were not revealed in the other studies. First, the unemployment rate in Cleveland was increasing at the time of the experiment; the other programs with which these data have been compared were not conducted in areas with increasing unemployment.

There is clear evidence that the claimants in Cleveland searched more aggressively under these circumstances than did their counterparts in stronger economic climates. And second, the design of the Cleveland program allowed the analysts to examine the behavior of claimants who received both an ES referral to a specific establishment with a known job opening and more general information about firms in the area that were known to hire persons with the claimant's qualifications. While the results are far from definitive, there is tantalizing evidence that the claimants substituted job search activity based on the more general information for followup of the specific ES job referral. There are several interpretations that can be given to this observation. The claimants may have placed such a low value on the specific ES referral that they preferred to substitute their own time in following up rather general information about the occupational structure of the local labor market. Or perhaps the claimants acted to avoid vulnerability for refusal of an unacceptable offer by searching in an environment in which no administrative monitoring occurred. While we are unable to choose between these, and perhaps other, interpretations, the important point remains: the claimants did engage in active search, on the average, and they did respond to suggestions that appeared to them to offer credible hope of revealing acceptable job opportunities.

The St. Louis Service to Claimants program evaluation is the most comprehensive one known to the author. It created a data set specifically designed to examine many of the issues of interest here, and it covered the entire benefit year for each of the claimants involved. Again, a true experimental design was used. A long list of activity, attitude, and outcome measures was examined in an attempt to detect differences between those who received the job search assistance services and those who did not. While many important findings emerged from the intensive analysis of these data, one generalization is pertinent for our purposes: using selection factors that might reasonably be used by UI program administrators or claims interviewers if desired—such as local office type or location, claimant sex or race, expressed expectation of recall to a former job, etc.—for all intents and purposes exhibits no effect on the services.

Each of the studies referenced above focused on the UI claimant population.

The cumulative results of attempts to promote claimant job search efforts should not be surprising.<sup>16</sup> Public intermediaries, be they UI or ES based, can do little more than broaden the claimant's pool of possible opportunities without providing much detail about those opportunities.

A unique analysis of the composition of claimant occupational experience and ES job-order listings gives an idea of how low the probability of job placement

really is for the UI claimant.<sup>17</sup> In this study, 25 two-digit occupational categories accounted for 76 percent of the claimants who completed full applications. One-third of the claimants are found in six of these categories. In these six categories the ratio of claimants in a two-digit occupational classification to claimants referred to job orders coded in the same way ranged from 0.17 to 0.61. *If* the claimants were competing only among themselves for jobs in only the two-digit category to which they have been assigned, this index would provide an accurate measure of the probability by occupational category of job referral by the ES. Broadening the analysis to the entire range of two-digit occupations, it was found that the ratio of claimants to claimants referred in a given occupational category ranged from 0.03 to 7.18. The value of greater than 1.0 indicates that more job referrals of claimants were made to job orders coded at a given two-digit level than there were claimants coded in the same way.

Several observations are in order about the relationships reported above. First, the variation in opportunity or vulnerability, depending upon what perspective one wishes to adopt, is extraordinary across this occupational dimension. Second, caution should be exercised in assessing the equity of administrative practices on the basis of data aggregated at this two-digit level; a more refined comparison is clearly warranted. And third, the data offer a hint that current occupational coding practices in local offices may reflect too little breadth of what claimants can do and are willing to do.<sup>18</sup>

Another conclusion of the study referenced above is that, since nonmonetary, nonseparation reasons for denial of benefits occur relatively infrequently, and because available measures of enforcement stringency are so weak, substantial caution should be exercised in acting upon the results of State-level cross-section analyses of this issue.<sup>19</sup> The demonstrated intraoffice variation in denial/determination rates across alleged reasons for ineligibility, and interoffice differences even within a given category, should be taken as warning signals that State-level observations gloss over much of the really interesting and important variability in administrative and claimant actions and conditions that begs explanation. Enforcement occurs at the local office level, so it is here that behavioral associations must be examined.

Limited evidence from the administration of work tests in the Food Stamps and AFDC programs is also available for consideration in reviewing the UI program.<sup>20</sup> A five-city study of these two programs in 1974 revealed the same variation across sites and client populations in the application of the work test as has been referred to above with respect to UI claimants. The AFDC program appears to reflect greater stringency of sanction, but few of the individuals monitored reported accepting jobs because of the

sanctions threat. The major pressure reported was simply a personal one of having to report active search compliance.

### Summary of evidence available from previous studies

Few studies have been designed to examine the UI work test directly. The evidence that is available provides consistent support for the following conclusions:

- There is substantial room for improvement of the classification of claimants with regard to their need for job search help. Many experienced local office staff members, on both the UI and ES sides, know much more about the likely duration of a claim at the time it is initially filed than is currently reflected in administrative practices.

- Having carved the claimant pool up into subgroups, there is no convincing evidence that much can be done through public agency auspices to promote a more rapid or lasting return to work that would not have occurred without the special effort. This is not to be interpreted as a blanket statement that ES labor-exchange activities have no impact.<sup>21</sup>

- There is no evidence that mandated referral of large numbers of UI claimants to ES offices has any beneficial effects, and there are many reasons to think that there are unwanted consequences. Among the most obvious of the undesirable effects are: the placement interviewer's job is made more difficult; prospective employers find it more costly to screen job applicants; and the absorption of ES resources in this enforcement activity diverts them from other possible uses. Even if each of these issues is given little weight, the fact remains that there is no reason to expect hiring employers and ES local office staff members to be enthusiastic participants in the procedures that are necessary to actually bring to fruition all of the steps in testing a claimant's willingness to accept available work.

- There is no question that the onerous nature of maintaining continuing eligibility to receive UI benefits can be fine-tuned to whatever level of claims load is desired. However, in doing so the various interested parties—UI and ES local office staff members, employers, and the public at large will incur very uneven costs and benefits, and they can be expected to react accordingly, *if* they are well informed about the consequences of various administrative options. It is in this context that the following recommendations are offered for consideration by Commission members.

### Recommendations

The Commission has already received at least one recommendation that administrative responsibility for

conducting the test of claimant willingness to accept available work be shifted from the ES to the UI agency.<sup>22</sup> At the present time the UI agency only administers the sanctions procedure that follows a determination that a refusal of a bona fide job offer has occurred. (This procedure includes the administrative determination that the refusal occurred for unacceptable reasons.) This recommendation accepts the merit of such a test as a given.

It is recognized, of course, that small changes are more easily achieved than major ones, and that the form of administrative requirements is sometimes of greater importance than the substance of those mandates.

It was, in part, to mollify Burns' objections that he (Shultz) proposed adding stiffer work requirements ("eyewash," a White House aide later called it) and articulated ways to integrate the (H.R. 1) plan with the income tax laws.<sup>23</sup>

(S)ome of the opposition we have encountered to our proposals to improve the quality of enforcement argues that more effective enforcement is often undesirable. Presumably, this is based on the belief that many laws or the way they can be interpreted do not promote social welfare.<sup>24</sup>

The conceptual framework and evidence presented in the preceding pages suggest that current administrative arrangements in testing UI claimant willingness to accept available work promotes neither the private welfare of the organizations involved nor the public welfare. Those claimants who are privileged to be represented by powerful advocacy groups are treated in fundamentally different ways than their less fortunate brethren. To date, women appear to have been dealt with in ways that differ from the administrative actions applied to male claimants, but little is known about the extent to which this difference is changing.

There is a compelling case for the Commission to recommend immediate removal of the ES from any continuing obligation to participate in mandated registration of claimants and testing of their willingness to accept available work. Such a withdrawal might be staged in ways that would permit a reliable assessment of the impact on UI claims loads to be performed, thereby protecting the administrative agencies from attack by skeptics who will assert that untoward events will occur, despite the lack of evidence to support such a position.

If this recommendation is made by the National Commission on Unemployment Compensation, strong reassurance should be offered that claimants will not be at liberty to abuse the UI system. Caution is urged in how this reassurance should be provided. For example, it often has been proposed that no test for willingness to accept work be imposed for a specified period following the initiation of a claim, but that

administrative stringency be increased thereafter. This assumes that those with potentially longer term benefit duration are more likely to abuse the intent of the system. There is no consensus on this matter. One positive step the Commission can endorse is the development of longitudinal records, such as the continuous wage and benefit history (CWBH) program, which will allow reliable analyses to be done covering such an issue as identification of repeaters. Only then can practical administrative procedures be debated. This recommendation is offered with full recognition that calls for further study are met with minimal enthusiasm. However, in this case, the choices appear to be continuation of administrative practices that are known to be seriously deficient or creation of management support information that can guide the development of refined procedures.

The Commission has an important public education role to play with regard to the work test issue. Professional students of the problem have been aware for a long time of the major deficiencies noted in this paper. Individual employers, claimants, and local office staff members can also confirm the accuracy of most of the behavioral forces described in these pages. Work test administration is a political issue, and the Commission obviously has to treat it as such. All this paper can do is arm the respective adversaries with information. The possibility should not be overlooked, however, that the removal of ES local offices from obligations of this type might genuinely produce almost all winners, and few if any losers. The most likely losers would be those few employers who seek to take advantage of the UI sanctions threat to secure, for however brief a time, employees who would not otherwise find their job offer attractive.

There is substantial expertise out there in local ES and UI offices. The staffs of those offices should be provided management support to use that expertise on behalf of their employer and claimant constituents.

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# Weekly Benefit Amounts



# Achieving Wage-Replacement Goals

Robert L. Crosslin  
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Since its inception in 1935 the basic objective of the unemployment insurance (UI) program in the United States has been to provide protection to workers from undue hardship resulting from wage loss without discouraging a quick return to employment. These objectives have been pursued primarily through the payment of a weekly benefit amount (WBA) to those workers covered by UI programs who qualify by way of past labor force attachment and adequate previous earnings.

The original drafters of the UI concept recommended a weekly benefit of 50 percent of previous gross weekly wages as a reasonable figure for ensuring adequate financial support and at the same time maintaining an incentive to return to work. All States originally went along with those guidelines and have, for the most part, maintained the present 50 percent wage-replacement principle in their individual benefit provisions. But because of a widening variability among individual State laws concerning potential duration of benefit receipts, total entitlement, maximum weekly benefit amounts (MWBA's), and other provisions, an increasing divergence in actual weekly benefits paid has evolved. The issue of whether to establish Federal standards to bring about some type of cross-State equity and to guarantee a minimum standard level of benefit adequacy must be discussed in the context of determining the specific purpose of unemployment benefit payments.

If the purpose of benefit payments is to provide a constant weekly level of income for the maintenance of a certain standard of living, then policymakers should be concerned with the amount of the WBA paid. If it is to provide for the maintenance of an income over a potentially lengthy period of time, then an important variable is the duration (weeks) during which the unemployed will be paid. Finally, if the simple replacement of income lost through wage loss is the chief concern, then some total potential amount of income replacement (total entitlement) as a proportion of normal annual income is the correct object of policy.

Presently, the individual States accept all three principles and combine them into standards that determine how much will be paid to the eligible unemployed

worker and for how long. Any thorough analysis of benefit standards policy should compare various combinations of weekly benefit, potential duration, and total entitlement standards. In the present study the WBA and, specifically, the effect of the MWBA are isolated for analysis. Recognizing the importance of the trade-off between duration, total entitlement, and WBA's, it can be argued that, because of the week-to-week uncertainty of one's unemployment status and because of the very temporary nature of unemployment for most workers, the weekly benefit paid is most important for evaluating the benefit adequacy of proposed changes in the present UI system.

## Past Proposals for Weekly Benefit Standards

For almost 30 years there have been repeated unsuccessful attempts by Presidential administrations and members of the Congress to legislate Federal standards on benefit payments to unemployed workers.<sup>1</sup>

The first such proposal was brought forth as administration policy by President Truman when he proposed minimum benefit standards among other UI changes in a special message to the Congress in 1950. Benefit standards, included in a bill by Representative McCormack of Massachusetts (H.R. 8059) met strong opposition from employer groups, however, and the bill died in committee.

President Eisenhower declared in 1954 that States should provide MWBA's high enough to permit the "great majority" of beneficiaries to replace at least half of their "regular earnings."<sup>2</sup> But only Democratic congressmen submitted bills containing Federal standards, and no serious congressional consideration was given until 1959 when the House Ways and Means Committee held hearings on the UI program. In that year, a

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Federal UI standards bill was proposed by Senator Karstens of Missouri providing for minimum benefits, but it failed by a single vote.

The Kennedy and Johnson administrations were the first to propose maximum and minimum standards for WBA's as well as standards for potential duration of benefits. Bills submitted to the House and Senate stipulated that the minimum weekly benefit amount was to be at least 50 percent of average weekly earnings exclusive of dependents' benefits. The maximum weekly benefit was to gradually increase from 50 percent of a statewide average weekly wage (AWW) in July 1967 to 66.6 percent in July 1971. The benefits standards, written in bills that required State compliance for all Federal tax credits, passed the Senate, failed in the House, and were finally removed in conference in 1966.

In a July 1969 message to the Congress, President Nixon for the first time proposed specific quantifiable goals for Federal benefit standards, proposing that all State UI programs guarantee that 80 percent of insured workers receive a benefit of half of their previous wages if unemployed.<sup>3</sup> Subsequently, in 1973, the administration more specifically defined these goals and proposed that they could be attained by raising each State's maximum benefit amount "to at least two-thirds of the average wage for the States' covered workers."<sup>4</sup> The Congress received this proposal in a 1973 bill sponsored by Congressmen Wilbur D. Mills and Gerald R. Ford as part of the Job Security Assistance Act of 1973.<sup>5</sup>

In recent years, on the State level, the principle of Federal benefit standards has encountered vacillating support. In July 1975 the majority of administrators of the Interstate Conference of Employment Security Agencies (ICESA) favored a federally required benefit of 50 percent of the individual's weekly wage up to a maximum of two-thirds of wages in covered employment. But more recently, this position was reversed when a group of these administrators voted to oppose the concept of benefit standards.

The perennial concern for retention of State autonomy in the benefit area of UI provisions has also been expressed by the National Governors' Association, which in 1976 urged the newly mandated National Commission on Unemployment Compensation (NCUC) to consider significant benefit flexibility for States subject to certain minimum benefit standards. The Governors argued that any benefit standards should take into account the specific relationship between benefit levels and average wages received within each State.

Legislative approval of benefit standards has in general been thwarted because of combined arguments supporting States rights and employers' concerns for the potential high costs of such standards. In addition, individual State employment security agencies (SESA's), as well as State legislatures, have been protective of

their own discretionary authority and influence on UI provisions.

The most recent advocacy of Federal benefit standards has been led by organized labor, in particular the United Auto Workers (UAW) and the AFL-CIO. The large industrial unions represent groups of workers who tend to have strong labor force attachment and AWW's that are well over twice the maximum weekly benefit ceilings in most States.<sup>6</sup> Consequently, organized labor has expressed increasing concern that benefit ceilings are too low and that large numbers of workers (particularly union members) are denied needed benefits during periods of cyclical or seasonal layoff. Union policies have pushed for liberalized and standardized UI provisions, particularly for benefit provisions.

The UAW has taken a strong stand for reducing inequity in interstate benefit levels and for increasing benefit levels overall through support of greater Federal control over State UI programs. Arguing that "present benefit levels are miserably low in most States," the UAW has urged the NCUC to recommend to the Congress a Federal standard providing a weekly benefit equal to at least two-thirds of a worker's average weekly earnings.<sup>7</sup> This *minimum* weekly benefit, a departure from the 50 percent wage-replacement principle of the original UI concept, is supported as necessary to provide deserving workers with an adequate ability to cover financial commitments during spells of unemployment. UAW policy also proposes a maximum weekly benefit that is no lower than three-fourths of average weekly earnings in all of covered employment. This high maximum is also a departure, supporting the view that present maximums are a key reason for present inadequate wage loss replacement since a high percentage of workers are restricted by existing State weekly benefit ceilings.

In its Executive Council policy statements over the past several years the AFL-CIO has agreed with the UAW in questioning the poverty-forestalling capabilities of the present UI system.<sup>8</sup> Calling for emergency legislation to protect workers from the dangers of an anticipated 1979-1980 recession, the AFL-CIO placed top priority on weekly benefit standards. A Federal minimum benefit standard of two-thirds of a worker's wage up to a maximum of three-fourths of the statewide AWW was proposed.<sup>9</sup>

Finally, the most recent important proposal dealing with maximum benefit standards has come from the NCUC. It recently recommended a Federal maximum for all States that is identical to the 1973 Nixon proposal. This standard of two-thirds of the average total weekly wages in covered employment, however, would be phased in by intervals of 2 years for each incremental increase until 1986: 1982, 55 percent AWW; 1984, 60 percent AWW; and 1986, 66.6 percent AWW.<sup>10</sup>

## Rationale for Federal Benefit Standards

Federal benefit standards have a lengthy history of political support, and recently they have been advocated based on the following three key arguments.<sup>11</sup>

First, all other aspects of UI programs, including finance, coverage, and eligibility, have had standards requiring at least a minimum level of treatment of the unemployed among the States. But what is probably the most crucial area, weekly benefit determination, is not covered by Federal policy at all. It can be argued that some minimum standards covering work force attachment, WBA, and weekly benefit duration would be appropriate.

Second, a rationale has arisen from an observed increase across States in variability of treatment of claimants with respect to benefit payments. An NCUC study of treatment of a typical claimant in 13 different States shows a wide divergence of potential duration of benefits, ratios of wage replacement, and numbers of unemployed exhausting benefits.<sup>12</sup> Proponents of benefit standards support a basic principle of equity, arguing that entitled workers faced with temporary unemployment deserve a certain level of equal treatment no matter the State in which they work or reside.

Finally, some argue that increasing Federal support in funding of UI programs justifies the establishment of Federal laws to regulate the manner in which Federal funds are spent. Federal loans to many financially troubled State UI trust funds during the last recession, supplemental and extended benefit programs that were enacted in 1970 and 1974, and recently proposed reinsurance and cost-equalization financing programs are all examples of increasing Federal responsibility in the UI field. It is understandable, then, that arguments have come forth that increasing Federal funds should be spent in patterns more compatible with uniform national agreement.

The other side of the argument is that, because benefit standards represent the heart of UI provisions and because WBA's are the key determinants of program costs, State autonomy in this area should be preserved. A "States rights" viewpoint also supports the contention that structural differences across States, implied by differences in AWW's and occurrences of unemployment, should consequently be treated with varying State laws. The original Federal-State UI system was formulated with the idea that each State individually should be able to design and operate its own UI program, paying attention to local needs and to local characteristics of labor markets. Also, according to this view, standards would be inherently insensitive to the individual State's ability to pay for benefits. As currently proposed, most benefit standards would indeed boost weekly benefit payments significantly, thus placing increasing burdens on local employers and taxpayers.

Rigorous analysis of the potential effects of Federal benefit standards has been lacking. In particular, proposed changes in maximum weekly wage benefit amounts have only been examined recently in one study.<sup>13</sup> Consequently, widely accepted MWBA proposals, such as two-thirds of AWW's in covered employment, have only been based on assumptions concerning what appeared to be reasonable and appropriate. One of the big problems for systematic analysis and comparison of benefit-standard proposals has been their imprecisely defined contents.

It is difficult, for example, to evaluate or predict the effects of past proposals that used phrases such as "the great majority of workers," "average weekly earnings," or "previous wages." The present study, in conjunction with the mandate of the NCUC to recommend UI policy reform, examines recent proposals to ascertain whether enactment would reach desired goals of income protection. This report does not deal with the separate and important issue of whether a 50 percent wage replacement is "adequate" or "inadequate" to meet program objectives.

## Current Weekly Benefit Formulas

Although varying extensively across States, the provisions for determining WBA's for unemployed workers in the UI system operate, in general, according to the worker's past wages and recent work experience, subject to specified minimum and maximum limits. Three different methods are used by the individual States to determine WBA's, although the intended effect of all three is to ensure that claimants receive 50 percent of gross full-time weekly wages. Thirty-eight States use a *high-quarter* technique in which WBA's are computed by taking a specified fraction (usually 1/26) of the claimants' earnings in their highest earnings quarter of a base period (usually 1 year). In five States, a fraction of base-period earnings (*annual wages*) determines the weekly benefit. Finally, a few States take a fraction of an *average weekly wage*, the latter being determined by the ratio of annual wages to actual weeks of work within a base period.<sup>14</sup>

The individual's WBA is limited in every State by an MWBA, where dollar ceilings on weekly benefits are imposed. MWBA's are determined by States either on a flexible or a fixed basis. Fixed MWBA's are set periodically by legislative action, while flexible MWBA's are adjusted according to permanent formulas adjusted to yearly changes in AWW's within the State.

## The UIS Study

In 1975 the Unemployment Insurance Service (UIS) of the Department of Labor conducted the first exten-

sive attempt to measure the degree to which weekly benefits replace previous weekly wages of workers during unemployment.<sup>15</sup> The study used a 1973 sample survey of UI claimants obtained from 52 SESA's.<sup>16</sup>

In examining across States, the UIS researchers found that UI benefits in 1973 replaced less than half of the weekly wages lost by a significant number of claimants. The key finding was that almost every State provided less than 80 percent of claimants with a 50 percent wage-loss replacement.<sup>17</sup>

The study also simulated the frequently proposed Federal standard of setting MWBA's equal to two-thirds of AWW's in covered employment. Even then, it was shown that an MWBA at two-thirds of the AWW still provided less than 80 percent of the *claimants* with a 50 percent wage-loss replacement. In other words, the attempt to lower the number of workers who were limited by a maximum benefit ceiling had a positive but fairly insignificant impact.

The authors of the study had presumed that the two-thirds of the AWW standard would do a better job of wage replacement than it did. They suspected that the *type* of WBA formula used could explain a State's relative wage-replacement performance. They argued that States with annual wage formulas did a comparatively poor job at wage replacement. The main factor cited for the poor replacement results for the WBA formulas was that those formulas, particularly the annual wage formulas, were based on overgeneralized assumptions concerning workers' work experience, measured by weeks worked in the relevant base periods. Since the nearly universal 50 percent wage-replacement standards were used in conjunction with these assumptions, many claimants who had weeks worked that were less than those assumed by the formulas failed to reach the 50 percent wage-replacement threshold.

The authors of the UIS study acknowledged that their use of a sample population composed of *claimants* did not exactly conform to past Federal policies aimed at a target population of *covered* or *insured* workers. Definition of the true target population of workers is crucial for an accurate analysis of benefit standard proposals. This is because, within any State, covered and insured workers, as well as claimant and beneficiary populations, all have different AWW's. Thus, the estimated effects of any Federal maximum standard using given proportions of the AWW's and the predictions of any statistical analysis of that standard will depend crucially on the selection of a target population.

The *claimant* category refers to any individual who files a request for UI benefits. Beneficiaries differ from claimants in that the beneficiaries include only claimants who draw at least 1 week of benefits. Many claimants are not monetarily qualified, are disqualified due to a separation issue, or otherwise never receive any benefits.

Covered workers are those who have earned wages in an industry or sector covered by UI laws. Insured

workers are covered workers who also have sufficient earnings or employment in their base period to meet their own State's monetary requirements for the receipt of benefits.

Generally, the most appropriate maximum benefit standard is that of insured workers, since they are the subset of workers who are potentially eligible for UI participation. In practical terms, however, the covered worker category is viewed as being more feasible administratively. The weakness of both these populations is that their use probably tends to overestimate the AWW of unemployed workers during periods of normal economic activity.

Use of the claimant category has been defended since average wages of claimants are easily obtained and because claimants provide a close approximation to those workers participating in the UI system. The main support for use of the beneficiary population is that this group represents exactly those workers who receive benefits from the system. The key weakness for the claimant and beneficiary categories is that their use would probably overestimate AWW's in periods of recession and underestimate AWW's during low or medium levels of unemployment. This occurs because the wage distribution mix for these two groups tends to vary with the business cycle.

The UIS authors defended the general applicability of the study's conclusions from the survey of claimants by showing that covered and insured workers always have AWW's that exceed those of claimants. This would imply that the wage-loss-replacement ratios for covered and insured workers would be lower than those estimated for claimants since there would be a greater number of workers whose benefits would be limited by relatively low MWBA's in the event of unemployment.

## The Present Study

The purpose of the present analysis is to provide estimates of the maximum WBA's that individual States would need in order to achieve specific wage-replacement goals. The several forms of wage-replacement goals for WBA's formulated by past U.S. Presidents, members of the Congress, ICESA, Presidential commissions, and organized labor can be summed up in the following commonly advocated regulatory standard: Each State should maintain an MWBA such that 80 percent of (select one) covered workers, insured workers, claimants, or beneficiaries could receive replacement of lost (gross) wages of at least 50 percent, in the event of unemployment.<sup>18</sup> MWBA proposals are defined here as a certain percentage of AWW's in covered employment for each State. As mentioned previously, the title of those in any of the previously named categories will influence the actual dollar amount of the MWBA necessary to achieve the "80 percent with a 50 percent

wage replacement" (80/50) goal. Speculations have been made about which population implies higher or lower State maximums, but, until now, reliable data have not been available to make comparisons for all States.

An accurate analysis of Federal standards on MWBA's needed to ensure that 80 percent of a population receives a given replacement rate requires that wage data on each *individual* in the selected population, not just the average wage, be used. In this study, all individuals in the population have first been put into a sequenced ascending order by AWW's. Then the individual(s) representing the 80th percentile in the population can be identified. If a 50 percent replacement rate is desired, then the maximum WBA must be one-half of the AWW of the individual(s) in the 80th percentile.

For claimants and beneficiaries, calculations are possible from State unemployment agency program data in all States. As mentioned previously, recommended wage-replacement goals have often been framed in terms of covered or insured workers because of the cyclical vagaries of claimant and beneficiary populations. Unfortunately, only the 38 quarterly-wage-reporting States have individual data on all covered workers. Thirteen of the largest States in the U.S., therefore, do not have the data to calculate the necessary maximum coverage based on covered workers. Also, using the category of insured workers would require the making of monetary eligibility calculations on every covered worker at a given time, which only quarterly-wage-reporting States have the capability of doing.

A UI simulation model developed by the Urban Institute has been employed to provide estimates of needed MWBA's for wage-replacement goals for all of these populations of all States.<sup>19</sup> The UI laws of all the States have been coded into the model, and the data source is the 1976 Survey of Income and Education (SIE). The SIE was a Current Population Survey (done by the Census Bureau) expanded to give State-by-State reliability. The model also uses UI administrative data to ensure close matchup between certain administration figures and model outputs.

To provide estimates for current MWBA's necessary for reaching desired wage-replacement goals, the 1975 SIE data were aged to 1979.

Proposed standards for MWBA's have been most frequently defined as various proportions of AWW's in covered employment.<sup>20</sup> For each State, the appropriate comparison, then, is between some proportion of AWW (e.g., 66.7 percent, 75 percent, and so on) and the AWW of the individual(s) at the 80th percentile at a 50 percent wage replacement. When the MWBA equals or exceeds one-half the wage of persons at the 80th percentile for the selected worker group (e.g., claimants) for an individual State, then the 80/50 goal is met for the State.

These comparisons have been carried out for the four alternative populations of potential UI participants.

## Empirical Results

The authors used estimated wage distributions for each State for 1979 to analyze the ability of alternative maximum WBA's to provide a 50 percent wage replacement.<sup>21</sup> Wage distributions for each of four groups—covered workers, insured workers, claimants, and beneficiaries—were used, and the analysis was performed separately for each group, as well as for comparisons across groups.<sup>22</sup>

### Wage replacement under current laws

Thirty-six States currently have flexible maximum weekly amounts. Among the States, 11 specify two-thirds or more of AWW, 10 use a proportion between 60 and 65 percent of AWW, and the remaining 15 specify an MWBA between 50 and 60 percent of the AWW.

The percentage of workers receiving (or able to receive) a 50 percent wage replacement under current State laws is surprisingly low. Only 14 States currently have MWBA's that would allow 70 percent of covered workers to receive a 50 percent wage replacement (see Table 1). The corresponding number of States able to provide 70 percent of insured workers, claimants, and beneficiaries with one-half wage replacement is 9, 11, and 7, respectively. Only 2 States currently provide 80 percent of claimants with a one-half wage replacement, and 1 State provides 80 percent of beneficiaries with a one-half wage replacement.<sup>23</sup> Note, however, that most States (about 40) provide at least half of each workers' group with a 50 percent wage replacement.

In general, the proportions tend to be higher for covered workers relative to insured workers and for claimants relative to beneficiaries, as expected. Current laws, however, tend to provide greater proportions of insured workers rather than beneficiaries with a one-half wage replacement, and it is also the case that greater proportions of covered workers rather than claimants receive a one-half wage replacement. These results are surprising and contradict the notion that the average wages of covered workers are higher than those of claimants and similarly that average wages of insured workers are higher than those of beneficiaries. Two explanations are possible.

First, it may be true that many States contain a large group of relatively low-wage, yet covered, insured workers who seldom become unemployed. An example of this type of worker may be secretarial and semiskilled workers who represent the growing service sector of the U.S. economy. If this type of employee does indeed constitute a large portion of a State's work force, then

TABLE 1. Proportion of workers (cumulative percentage) under current MWBA (MWBA 80) able to receive 50 percent wage replacement under different worker categories

State	Covered workers	Insured workers	Claimants	Beneficiaries
US	0.0	0.0	0.0	0.0
AL	55.3	45.0	39.0	36.0
AK	32.9	24.0	14.0	12.0
AZ	51.8	42.0	29.0	21.0
AR	76.5	75.0	80.0	79.0
CA	54.8	51.0	46.0	43.0
CO	68.9	65.0	65.0	60.0
CT	62.3	60.0	51.0	48.0
DE	68.5	66.0	66.0	63.0
DC	76.8	75.0	62.0	59.0
FL	54.1	49.0	65.0	61.0
GA	49.0	45.0	17.0	15.0
HI	72.6	72.0	58.0	53.0
ID	69.4	65.0	58.0	54.0
IL	55.3	51.0	59.0	57.0
IN	31.7	25.0	17.0	12.0
IA	64.6	59.0	56.0	51.0
KS	69.2	66.0	67.0	65.0
KY	61.8	56.0	57.0	53.0
LA	70.0	68.0	64.0	67.0
ME	57.8	52.0	58.0	54.0
MD	62.1	60.0	42.0	37.0
MA	65.3	64.0	64.0	62.0
MI	36.0	33.0	19.0	14.0
MN	74.4	73.0	72.0	68.0
MS	57.8	55.0	57.0	54.0
MO	53.9	50.0	61.0	59.0
MT	69.9	61.0	58.0	50.0
NE	58.3	56.0	51.0	49.0
NV	61.6	58.0	47.0	45.0
NH	62.6	57.0	62.0	59.0
NJ	55.8	54.0	64.0	62.0
NM	55.8	48.0	37.0	32.0
NY	55.7	54.0	57.0	54.0
NC	74.6	66.0	78.0	77.0
ND	76.5	71.0	61.0	56.0
OH	55.1	54.0	35.0	32.0
OK	76.7	74.0	79.0	78.0
OR	63.0	57.0	79.0	77.0
PA	74.4	73.0	73.0	71.0
PR	1	1	1	1
RI	65.4	64.0	68.0	63.0
SC	67.9	66.0	70.0	70.0
SD	71.2	62.0	59.0	56.0
TN	63.5	60.0	69.0	69.0
TX	52.1	49.0	47.0	48.0
UT	72.5	71.0	70.0	64.0
VT	70.1	68.0	68.0	68.0
VA	65.6	60.0	64.0	58.0
WA	63.8	55.0	71.0	67.0
WV	79.2	76.0	82.0	80.0
WI	73.0	72.0	74.0	72.0
WY	63.6	56.0	64.0	60.0

<sup>1</sup> Data unavailable.

SOURCE: *Survey of Income and Education (SIE)*. A 1975 expanded version of the *Current Population Survey* (Private Sector and Civilian Government Wage Earners, age 16 and older, Average Weekly Wage). The SIE data, adjusted for differences between it and UI program data, were the basic source for the UI model's construction of wage distributions for the four worker populations analyzed. A cumulative frequency distribution for each population was compiled by using primarily \$20 and \$40 wage intervals (Source: Urban Institute). Then the average weekly wage at which the frequency distribution reached 80 percent was computed by linear interpolation. This wage was multiplied by 0.5 and 0.6 for each State to obtain the 80/50 amount shown in Table 2.

the wage distribution and hence the resultant 80/50 MWBA standard for the State's covered or insured population are likely to be low relative to the State's claimant or beneficiary counterparts.

Alternatively, a State may have a highly industrialized economic base with many highly skilled or semiskilled high-wage workers who have frequent chances of becoming unemployed. Examples here might include States with large auto, steel, rubber, or construction industries. In these States frequent UI claims and benefit receipts by relatively high-wage groups may shift up the wage distribution for the claimant and beneficiary populations. Two examples that tend to confirm this explanation are Indiana and Ohio, which have large proportions of high-wage blue-collar jobs.

The important result of this is that the proportion of workers receiving the recommended 50 percent wage replacement under current State laws is low, especially when compared to the 80 percent criterion, no matter which worker group is analyzed. Against this backdrop the authors examine the effect on these proportions of the often proposed standard of MWBA's being set at two-thirds of statewide AWW's.

#### The "two-thirds solution" to benefit adequacy

As previously stated, numerous public and private individuals and groups have advocated that a minimum Federal benefits standard be established, requiring all States to set their MWBA at two-thirds of the statewide AWW. The contention has been that this would largely achieve the goal of providing at least 80 percent of covered (insured) workers/claimants (beneficiaries) with at least one-half wage replacement. Indeed, 11 States have so far implemented the proposal, and 10 others are close. Yet estimates in this report indicate that this is not true. Table 2 contrasts the MWBA implied by a two-third AWW formula with the estimated MWBA necessary in each State to achieve "80 percent of a worker group receiving a one-half wage replacement," for each of the four worker groups.

The disparity between the two-thirds implied MWBA and the estimated maximum to achieve the 80/50 goal averages about 20 percent for claimants. In other words, on average, the MWBA necessary to achieve the 80/50 goal for claimants would need to be 20 percent higher than the MWBA achieved by a two-thirds formula. (The disparity is slightly greater for beneficiaries, and slightly less for covered and insured workers.) In fact, the authors estimate that under the "two-thirds solution" no State would be able to provide at least 80 percent of covered or insured workers with a one-half wage replacement; only 11 States would be able to provide at least 80 percent of claimants with a one-half wage replacement; and only 8 States would be able to provide at least 80 percent of beneficiaries with a one-half wage replacement.

TABLE 2. Maximum WBA at two-thirds AWW, maximum WBA to get 80 percent with 50 percent wage replacement under four different worker categories

State	MWBA80 <sup>1</sup>	AWW79 <sup>2</sup>	MWBA-.0.667	80/50 Covered workers <sup>3</sup>	80/50 Insured workers <sup>3</sup>	80/50 Claimants <sup>4</sup>	80/50 Beneficiaries <sup>4</sup>
US	250.63	NA	167.17	183.50	188.50	197.00	202.50
AL	222.87	90.00	148.65	158.50	159.50	175.00	188.00
AK	409.33	90.00	273.02	— <sup>5</sup>	— <sup>5</sup>	— <sup>5</sup>	— <sup>5</sup>
AZ	237.96	95.00	158.72	175.00	189.50	246.50	261.00
AR	203.55	136.00	135.77	146.00	148.50	136.00	137.50
CA	267.33	120.00	178.31	200.00	207.00	219.50	220.50
CO	245.42	150.00	163.70	182.00	188.00	190.00	203.00
CT	261.85	134.00	174.65	186.00	189.50	218.00	220.00
DE	266.18	150.00	177.54	190.50	194.00	199.50	206.00
DC	281.62	181.00	187.84	191.50	196.00	220.50	225.50
FL	221.69	95.00	147.87	157.00	163.00	114.00	118.00
GA	224.15	90.00	149.51	156.00	159.00	209.00	216.00
HI	230.27	144.00	153.59	165.00	166.50	214.00	223.50
ID	221.52	132.00	147.75	162.00	171.00	183.00	187.50
IL	277.43	133.00	185.05	201.00	209.00	198.00	200.50
IN	258.34	74.00	172.31	191.50	197.50	240.00	239.00
IA	231.71	131.00	154.55	173.00	180.50	184.00	191.50
KS	227.24	136.00	151.57	165.50	173.50	169.00	176.00
KY	236.11	120.00	157.49	171.50	182.50	189.50	191.50
LA	247.23	149.00	164.90	184.50	187.50	210.00	203.50
ME	200.54	96.00	133.76	147.50	157.00	138.50	150.50
MD	234.50	120.00	156.41	166.00	168.00	230.50	237.50
MA	241.55	131.00	161.11	175.00	178.00	167.00	178.50
MI	312.01	97.00	208.11	— <sup>5</sup>	— <sup>5</sup>	— <sup>5</sup>	— <sup>5</sup>
MN	245.37	162.00	163.66	185.50	188.00	185.50	195.50
MS	197.28	90.00	131.59	141.00	145.00	145.50	152.00
MO	241.44	105.00	161.04	180.00	187.50	151.50	149.00
MT	214.81	131.00	143.28	159.00	175.50	187.50	198.00
NE	213.61	106.00	142.48	157.00	160.50	170.50	172.00
NV	248.24	123.00	165.58	175.50	181.50	209.00	210.50
NH	216.66	114.00	144.51	157.00	165.00	148.00	152.00
NJ	267.17	123.00	178.20	191.00	192.50	168.50	172.50
NM	222.30	98.00	148.27	158.00	171.00	188.00	183.50
NY	274.01	125.00	182.76	195.00	197.50	182.50	185.50
NC	209.56	130.00	139.78	146.00	171.50	135.00	136.00
ND	213.09	143.00	142.13	159.00	171.50	167.50	173.00
OH	269.81	128.00	179.96	190.00	191.50	265.50	270.00
OK	231.75	156.00	154.58	167.00	175.00	158.00	159.50
OR	253.84	138.00	169.31	188.50	197.50	139.00	142.50
PA	253.50	162.00	169.08	181.00	184.00	181.00	186.00
PR	150.19	84.00	100.18	— <sup>5</sup>	— <sup>5</sup>	— <sup>5</sup>	— <sup>5</sup>
RI	218.35	120.00	145.64	154.50	156.50	144.00	159.50
SC	206.86	114.00	137.98	147.00	150.00	129.50	134.00
SD	191.62	119.00	127.81	145.50	161.50	163.00	167.50
TN	218.37	110.00	145.65	152.50	157.00	134.50	133.00
TX	249.41	105.00	166.36	182.50	185.50	185.00	184.00
UT	229.59	150.00	153.14	175.00	177.50	181.50	193.50
VT	208.08	125.00	138.79	151.00	154.00	148.50	140.00
VA	223.45	122.00	149.04	157.00	165.50	156.00	167.50
WA	274.39	150.00	183.02	204.00	218.00	168.50	178.00
WV	260.87	184.00	174.00	186.50	194.00	173.00	180.00
WI	244.67	160.00	163.19	181.00	183.00	172.00	177.50
WY	265.00	146.00	176.75	204.50	217.50	205.50	216.00

<sup>1</sup> MWBA80 maximum weekly benefit amount for 1980. Source: *Comparison of State Unemployment Insurance Laws* (Washington, D.C., U.S. Department of Labor, Employment and Training Administration, July 1980 revision), table 304, column 2. Ten States have variable maximum weekly benefit formulas because of dependents' allowance provisions. This table presents the lower limit of each weekly benefit range. The 10 States with their benefit ranges are:

Alaska	\$ 90-120	Massachusetts	\$131-197
Connecticut	134-184	Michigan	97-136
Illinois	133-180	Ohio	128-202
Indiana	74-124	Pennsylvania	162-170
Maine	96-156	Rhode Island	120-140

<sup>2</sup> AWW79 = estimated average weekly wage in covered employment; claimants and beneficiaries columns estimated by using 6.6 percent unemployment rate.

<sup>3</sup> Source: Survey of Income and Education (SIE)—A 1975 expanded version of the *Current Population Survey* (Private Sector and Civilian Government Wage Earners, age 16 and older, Average Weekly Wage). The SIE data, adjusted for differences between it and UI program data were the basic source for the UI model's construction of wage distributions for the four worker populations analyzed. A cumulative frequency distribution for each population was compiled by using primarily \$20 and \$40 wage intervals (Source: Urban Institute). Then the AWW at which the frequency distribution reached 80 percent was computed by linear interpolation. This was multiplied by 0.5 and 0.6 for each State to obtain the 80/50 amounts shown here.

<sup>4</sup> Claimants and beneficiaries columns estimated by using a 6.6 percent unemployment rate.

<sup>5</sup> The particular wage distribution for these States made it difficult to identify the AWW's of the individual at the 80th percentile.

<sup>6</sup> Estimates are not possible because of unavailable data.

Clearly the "two-thirds solution" does not come even close to achieving the historical 80/50 wage replacement goal. What standard will it take to achieve this goal for most or all of the States?

### Wage replacement under alternative standards

Assuming that the 80/50 goal is a desirable one to be maintained (and it may be too ambitious or costly), the vast majority of States would achieve it with a minimum Federal standard set at 75 to 85 percent of statewide AWW, depending on the target worker group selected—75 for covered workers, 80 for insured workers, and 85 for both claimants and beneficiaries (see Table 3). Standards less than this achieve little since larger breaks in the number of States occur at these levels.

Any single standard, however, masks the fact that there is great variation among the individual States in the proportion of a particular worker group that is able to receive a one-half wage replacement. Table 4 vividly shows this variation. It gives the authors' estimate of the proportion of AWW each State would need to have set its maximum WBA at in order to achieve the 80/50 goal. The proportion ranges from 0.68 to 0.77 for covered workers, 0.696 to 0.82 for insured workers, 0.514 to 1.04 for claimants, and 0.53 to 1.1 for beneficiaries.

This raises the question of whether a "performance" standard would be more appropriate, if a standard is to be used at all. For example, States could be encouraged or mandated to set their MWBA's for the coming years at a level that ensures that at least 80 percent of covered workers are able to receive at least a 50 percent wage replacement (based on their available prior year's covered wage data). This might be a more flexible and less costly way of achieving an 80/50 (or any other) wage-replacement goal.

Support for a wage-replacement principle even greater than 50 percent has been voiced in recent years. Although this study focused specifically on the 50 percent goal, identical tables pertaining to a possible 60 percent wage replacement goal have been included in the Appendix. The results show that, as would be ex-

pected, a 60 percent wage replacement would require even more liberal maximum benefit standards than would occur in the 50 percent case.

### Conclusions

The authors have presented new evidence that the often professed goal of providing one-half wage replacement to at least 80 percent of covered workers (or insured workers, claimants, or beneficiaries) will not be met by a Federal minimum standard that maximum WBA's be set at two-thirds of statewide AWW's. According to the authors' estimates, the standard would have to be 75 percent of AWW if covered workers are the target group, 80 percent if insured workers are selected, and 85 percent for either claimants or beneficiaries. Maximum levels would have to be set even higher if States were to follow the recommendations of the NCUC and increase basic replacement rates from 50 to 60 percent of prior wages.

Furthermore, such a standard would greatly reduce the wide variability across States in the proportion of workers receiving a 50 percent replacement rate. Performance guidelines or standards should be considered as equitable and reasonable alternatives.

Finally, the implied increase in benefit costs of meeting these goals is large. The additional cost of just a two-thirds-AWW Federal benefit standard is estimated to be 19.6 percent by the authors' simulation model. Given all these facts, the authors believe that new consideration should be given to wage-replacement goals. Is the 80/50 goal too high? What can the UI system afford given competing needs? Is one-half wage replacement adequate or inadequate?

The authors hope that the UI program is entering into a new era of introspection and analysis on the issues of benefit adequacy and wage-replacement goals.

### Notes

1. More thorough discussions of past administration and legislative proposals are presented by William

TABLE 3. Cumulative number of States achieving 80/50 wage-replacement goals at various proportions of AWW79

80/50 -1980 Current MWBA	0.667	0.70	0.75	0.80	0.85	0.90	0.95	1.00 (AWW79)
Covered workers—0	0	4	45	49	49	49	49	49
Insured Workers—0	0	1	24	44	49	49	49	49
Claimants—2	11	17	25	34	41	43	46	48
Beneficiaries—1	8	13	21	26	41	42	44	46

NOTE: The figures in this table are derived by comparing current maximum benefit provisions (MWBA80) and various proportions of AWW79 with the estimated MWBA's for 1980 necessary to achieve the 80/50 wage replacement goals. The column numbers show the cumulative number of States that achieve these goals as the proportion of AWW79 are increased.

TABLE 4. Estimated 1980 maximum WBA as a percentage of AWW79 necessary to achieve a goal of 80 percent of workers to receive a 50 percent wage replacement <sup>1</sup>

State	Covered (80/50)/ AWW79	Insured (80/50)/ AWW79	Claimants (80/50)/ AWW79	Beneficiaries (80/50)/ AWW79
US	0.732	0.752	0.786	0.808
AL	0.711	0.716	0.785	0.844
AK	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>
AZ	0.735	0.796	1.036	1.097
AR	0.717	0.730	0.668	0.676
CA	0.748	0.774	0.821	0.825
CO	0.742	0.766	0.774	0.827
CT	0.710	0.724	0.833	0.840
DE	0.716	0.729	0.749	0.774
DC	0.680	0.696	0.783	0.801
FL	0.708	0.735	0.514	0.532
GA	0.696	0.709	0.932	0.964
HI	0.717	0.723	0.929	0.971
ID	0.731	0.772	0.826	0.846
IL	0.725	0.753	0.714	0.723
IN	0.741	0.764	0.929	0.925
IA	0.747	0.779	0.794	0.826
KS	0.728	0.764	0.744	0.775
KY	0.726	0.773	0.803	0.811
LA	0.746	0.758	0.849	0.823
ME	0.736	0.783	0.691	0.750
MD	0.708	0.716	0.983	1.013
MA	0.724	0.737	0.691	0.739
MI	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>
MN	0.756	0.766	0.756	0.797
MS	0.715	0.735	0.738	0.770
MO	0.746	0.777	0.627	0.617
MT	0.740	0.817	0.873	0.922
NE	0.735	0.751	0.798	0.805
NV	0.707	0.731	0.842	0.848
NH	0.725	0.762	0.683	0.702
NJ	0.715	0.721	0.631	0.646
NM	0.711	0.769	0.846	0.825
NY	0.712	0.721	0.666	0.677
NC	0.697	0.818	0.644	0.649
ND	0.746	0.805	0.786	0.812
OH	0.704	0.710	0.984	1.001
OK	0.721	0.755	0.682	0.688
OR	0.743	0.778	0.548	0.561
PA	0.714	0.726	0.714	0.734
PR	— <sup>3</sup>	— <sup>3</sup>	— <sup>3</sup>	— <sup>3</sup>
RI	0.708	0.717	0.659	0.730
SC	0.711	0.725	0.626	0.648
SD	0.759	0.843	0.851	0.874
TN	0.698	0.719	0.616	0.609
TX	0.732	0.744	0.742	0.738
UT	0.762	0.773	0.791	0.843
VT	0.726	0.740	0.714	0.673
VA	0.703	0.741	0.698	0.750
WA	0.743	0.794	0.614	0.649
WV	0.715	0.744	0.663	0.690
WI	0.740	0.748	0.703	0.725
WY	0.772	0.821	0.775	0.815

<sup>1</sup> Figures in this table are derived by simple division of the 80/50 wage-replacement requirements for 1980 by AWW79. The table shows for each State the percentages of AWW's that would be necessary to achieve those goals.

<sup>2</sup> The particular wage distribution for these States made it difficult to identify the AWW's of the individual at the 80th percentile.

<sup>3</sup> Estimates are not possible because of unavailable data.

Papier, "Standards for Improving Maximum Unemployment Insurance Benefits," *Industrial and Labor Relations Review*, April 1974, pp. 376-90, and in "Federal Benefit Standards," Issue Paper for NCUC, May 23, 1979.

2. *Economic Report of the President*, January 28, 1954, pp. 97-98.

3. *Message from the President of the United States*, House Document No. 91-135, 91st Congress, 1st session, July 8, 1969.

4. *Message from the President of the United States*, House Document No. 93-83, 91st Congress, 1st session, April 12, 1973.

5. H.R. 8600.

6. Michigan with its highly unionized industrial work force is a prime example. Its estimated 1979 AWW (covered workers) was \$312 while its maximum WBA was \$97.

7. United Auto Workers Position Paper, April 1979.

8. AFL-CIO Executive Council Statement, Bal Harbor, Florida, February 26, 1979.

9. AFL-CIO Executive Council Statement.

10. *Unemployment Compensation Policy Decisions*, Preliminary Report (Washington, D.C., NCUC, June 30, 1980), p. 21.

11. "Weekly Benefit Amount: An Analysis of Issues and Options," Background Paper for NCUC, March 3, 1979.

12. "How Diverse is the Treatment of UI Claimants by State?," State Paper for NCUC, 1979.

13. "Weekly Benefit Amounts and Normal Weekly Wages of Unemployment Insurance Claimants," U.S. Department of Labor, Employment and Training Administration, Unemployment Insurance Service, August 1977.

14. For a detailed description of State UI provisions, see *Unemployment Insurance: State Laws and Experience* (Washington, D.C., U.S. Department of Labor, Employment and Training Administration, Unemployment Insurance Service, 1978).

15. "How Diverse is Treatment of UI Claimants."

16. The sample size was 93,340.

17. UIS Study, p. 1.

18. Wage replacement of two-thirds of previous earnings has been proposed by both the UAW and the AFL-CIO. The NCUC has expressed support for achieving an ultimate 60 percent wage replacement in *Commission Policy Decisions* (Washington, D.C., NCUC, June 30, 1980), p. 22. Eighty percent is a figure accepted by most policymakers as the proportion representing the spirit of Eisenhower's original "great majority" of workers wage-replacement principle.

19. A thorough summary of the methodology and capabilities of the UI simulation model is provided in: "A Microsimulation Model of Unemployment Insurance," Wayne Vroman, Project Director (Washington, D.C., The Urban Institute, January 1980). Also, con-

tained as part of this compendium, see Wayne Vroman, "A Simulation Model," *Unemployment Compensation: Studies and Research* (Washington, D.C., NCUC, 1980).

20. The reason that AWW's in covered employment have been used as the instrument for establishing new MWBA standards is that it is the only reliable statistic that measures the same concept in all States and covers a universe of workers. The fact that it is a measure for covered workers would not affect its utility if another category of workers (such as insured, claimants, or beneficiaries) were the target population for wage-replacement standards. In the present context, the only criterion for evaluating a benefit maximum is its ability to provide 50 percent wage replacement for at least 80 percent of the worker population chosen. In other words, the source or computational origin of the MWBA formula is unimportant as long as the desired wage-replacement goals are achieved. The source of AWW statistics is *Handbook of Unemployment Insur-*

*ance Financial Data 1938-1976* (Washington, D.C., U.S. Department of Labor, Employment and Training Administration, Unemployment Insurance Service). Estimates for AWW 1979 were obtained from the UIS.

21. Because of the particular wage distribution for Alaska and Michigan it was not readily possible to identify the AWW's of the 80th percentile individual for those two States. In addition, estimates for Puerto Rico were not possible because of unavailable data.

22. The population used by the UI model to represent the claimant category is covered workers who apply for UI benefits. Strictly defined, a claimant is anyone who applies. But since recent laws (PL 94-566, 1978) extended UI coverage to practically all wage and salary workers, the use of the covered applicants category is a very close substitute for claimants.

23. The results obtained for the claimant category agree substantially with the results found by the authors of the previously mentioned UIS study.

## Appendix: Additional Tables

TABLE A-1. Maximum WBA at two-thirds of AWW, percent maximum WBA to get 80 percent with 60 percent wage replacement under different worker categories

State	AWW79 <sup>1</sup>	MWBA80 <sup>2</sup>	MWBA-0.667	80/60 Covered workers <sup>3</sup>	80/60 Insured workers <sup>3</sup>	80/60 Claimants <sup>4</sup>	80/60 Beneficiaries <sup>4</sup>
US	250.63	NA	167.17	220.20	226.40	236.40	243.00
AL	222.87	90.00	148.65	190.20	191.40	210.00	225.60
AK	409.33	90.00	273.02	— <sup>5</sup>	— <sup>5</sup>	— <sup>5</sup>	— <sup>5</sup>
AZ	237.96	95.00	158.72	210.00	227.40	295.80	313.20
AR	203.55	136.00	135.77	175.20	178.20	163.20	165.00
CA	267.33	120.00	178.31	240.00	248.40	263.40	264.60
CO	245.42	150.00	163.70	218.40	225.60	228.00	243.60
CT	261.85	134.00	174.65	223.20	227.40	261.60	264.00
DE	266.18	150.00	177.54	228.60	232.80	239.40	247.20
DC	281.62	181.00	187.84	229.80	235.20	264.60	270.60
FL	221.69	95.00	147.87	188.40	195.60	136.80	141.60
GA	224.15	90.00	149.51	187.20	190.80	250.80	259.20
HI	230.27	144.00	153.59	198.00	199.80	256.80	268.20
ID	221.52	132.00	147.75	194.40	205.20	219.60	225.00
IL	277.43	133.00	185.05	241.20	250.80	237.60	240.60
IN	258.34	74.00	172.31	229.80	237.00	288.00	286.80
IA	231.71	131.00	154.55	207.60	216.60	220.80	229.80
KS	227.24	136.00	151.57	198.60	208.20	202.80	211.20
KY	236.11	120.00	157.49	205.80	219.00	227.40	229.80
LA	247.23	149.00	164.90	221.40	225.00	252.00	244.20
ME	200.54	96.00	133.76	177.00	188.40	166.20	180.60
MD	234.50	120.00	156.41	199.20	201.60	276.60	285.00
MA	241.55	131.00	161.11	210.00	213.60	200.40	214.20
MI	312.01	97.00	208.11	— <sup>5</sup>	— <sup>5</sup>	— <sup>5</sup>	— <sup>5</sup>
MN	245.37	162.00	163.66	222.60	225.60	222.60	234.60
MS	197.28	90.00	131.59	169.20	174.00	174.60	182.40
MO	241.44	105.00	161.04	216.00	225.00	181.80	178.80
MT	214.81	131.00	143.28	190.80	210.60	225.00	237.60
NE	213.61	106.00	142.48	188.40	192.60	204.60	206.40
NV	248.24	123.00	165.58	210.60	217.80	250.80	252.60
NH	216.66	114.00	144.51	188.40	198.00	177.60	182.40
NJ	267.17	123.00	178.20	229.20	231.00	202.20	207.00
NM	222.30	98.00	148.27	189.60	205.20	225.60	220.20
NY	274.01	125.00	182.76	234.00	237.00	219.00	222.60
NC	209.56	130.00	139.78	175.20	205.80	162.00	163.20
ND	213.09	143.00	142.13	190.80	205.80	201.00	207.60
OH	269.81	128.00	179.96	228.00	229.80	318.60	324.00
OK	231.75	156.00	154.58	200.40	210.00	189.60	191.40
OR	253.84	138.00	169.31	226.20	237.00	166.80	171.00
PA	253.50	162.00	169.08	217.20	220.80	217.20	223.20
PR	150.19	84.00	100.18	— <sup>5</sup>	— <sup>5</sup>	— <sup>5</sup>	— <sup>5</sup>
RI	218.35	120.00	145.64	185.40	187.80	172.80	191.40
SC	206.86	114.00	137.98	176.40	180.00	155.40	160.80
SD	191.62	119.00	127.81	174.60	193.80	195.60	201.00
TN	218.37	110.00	145.65	183.00	188.40	161.40	159.60
TX	249.41	105.00	166.36	219.00	222.60	222.00	220.80
UT	229.59	150.00	153.14	210.00	213.00	217.80	232.20
VT	208.08	125.00	138.79	181.20	184.80	178.20	168.00
VA	223.45	122.00	149.04	188.40	198.60	187.20	201.00
WA	274.39	150.00	183.02	244.80	261.60	202.20	213.60
WV	260.87	184.00	174.00	223.80	232.80	207.60	216.00
WI	244.67	160.00	163.19	217.20	219.60	206.40	213.00
WY	265.00	146.00	176.75	245.40	261.00	246.60	259.20

<sup>1</sup> AWW79 = estimated average weekly wage in covered employment, claimants and beneficiaries columns estimated by using 6.6 percent unemployment rate.

<sup>2</sup> MWBA80 = maximum weekly benefit amount for 1980. Source: *Comparison of State Unemployment Insurance Laws* (Washington, D.C., U.S. Department of Labor, Employment and Training Administration, July 1980 revision), table 304, column 2. Ten States have variable maximum weekly benefit formulas because of dependents' allowance provisions. Table 2 presents the lower limit of each weekly benefit range. The 10 States with their benefit ranges are:

Alaska	\$ 90-120	Massachusetts	\$131-197
Connecticut	134-184	Michigan	97-136
Illinois	133-180	Ohio	128-202
Indiana	74-124	Pennsylvania	162-170
Maine	96-156	Rhode Island	120-140

<sup>3</sup> Survey of Income and Education (SIE)—A 1975 expanded version of the *Current Population Survey* (Private Sector and Civilian Government Wage Earners, age 16 and older, Average Weekly Wage). The SIE data, adjusted for differences between it and UI program data were the basic source for the UI model's construction of wage distributions for the four worker populations analyzed. A cumulative frequency distribution for each population was compiled by using primarily \$20 and \$40 wage intervals (Source: Urban Institute). Then the AWW at which the frequency distribution reached 80 percent was computed by linear interpolation. This was multiplied by 0.6 for each State to obtain the 80/60 amounts shown.

<sup>4</sup> Claimants and beneficiaries columns estimated by using a 6.6 percent unemployment rate.

<sup>5</sup> The particular wage distributions for the States made it difficult to identify the AWW's of the individual at the 80th percentile.

<sup>6</sup> Estimates are not possible because of unavailable data.

TABLE A-2. Cumulative number of States achieving 80/60 wage-replacement goal at various proportions of AWW79

80/60—1980 Current MWBA	0.667	0.70	0.75	0.80	0.85	0.90	0.95	1.00 (AWW79)
Covered workers—0	0	0	0	0	10	45	49	49
Insured workers—0	0	0	0	0	1	24	42	48
Claimants—0	2	2	4	11	18	25	32	38
Beneficiaries—0	1	2	4	8	14	21	25	36

NOTE: The figures in this table are derived by comparing current maximum benefit provisions (MWBA80) and various proportions of AWW79 with the estimated MWBA's for 1980 necessary to achieve the 80/60 wage-replacement goals. The column numbers show the cumulative number of States that achieve those goals as the proportions of AWW79 are increased.

TABLE A-3. Estimated 1980 maximum WBA as a percentage of AWW79 necessary to achieve a goal of 80 percent of workers to receive a 60 percent wage replacement

State	Covered (80/60)/ AWW79	Insured (80/60)/ AWW79	Claimants (80/60)/ AWW79	Beneficiaries (80/60)/ AWW79
US	0.879	0.903	0.943	0.970
AL	0.853	0.859	0.942	1.012
AK	INA	INA	INA	INA
AZ	0.883	0.956	1.243	1.316
AR	0.861	0.875	0.802	0.811
CA	0.898	0.929	0.985	0.990
CO	0.890	0.919	0.929	0.993
CT	0.852	0.868	0.999	1.008
DE	0.859	0.875	0.899	0.929
DC	0.816	0.835	0.940	0.961
FL	0.850	0.882	0.617	0.639
GA	0.835	0.851	1.119	1.156
HI	0.860	0.868	1.115	1.165
ID	0.878	0.926	0.991	1.016

TABLE A-3. (continued)

State	Covered (80/60)/ AWW79	Insured (80/60)/ AWW79	Claimants (80/60)/ AWW79	Beneficiaries (80/60)/ AWW79
IL	0.869	0.904	0.856	0.867
IN	0.890	0.917	1.115	1.110
IA	0.896	0.935	0.953	0.992
KS	0.874	0.916	0.892	0.929
KY	0.872	0.928	0.963	0.973
LA	0.896	0.910	1.019	0.988
ME	0.883	0.939	0.829	0.901
MD	0.849	0.860	1.180	1.215
MA	0.869	0.884	0.830	0.887
MI	INA	INA	INA	INA
MN	0.907	0.919	0.907	0.956
MS	0.858	0.882	0.885	0.925
MO	0.895	0.932	0.753	0.741
MT	0.888	0.980	1.047	1.106
NE	0.882	0.902	0.958	0.966
NV	0.848	0.877	1.010	1.018
NH	0.870	0.914	0.820	0.842
NJ	0.858	0.865	0.757	0.775
NM	0.853	0.923	1.015	0.991
NY	0.854	0.865	0.799	0.812
NC	0.836	0.982	0.773	0.779
ND	0.895	0.966	0.943	0.974
OH	0.845	0.852	1.181	1.201
OK	0.865	0.906	0.818	0.826
OR	0.891	0.934	0.657	0.674
PA	0.857	0.871	0.857	0.880
PR	INA	INA	INA	INA
RI	0.849	0.860	0.791	0.877
SC	0.853	0.870	0.751	0.777
SD	0.911	1.011	1.021	1.049
TN	0.838	0.863	0.739	0.731
TX	0.878	0.893	0.890	0.885
UT	0.915	0.928	0.949	1.011
VT	0.871	0.888	0.856	0.807
VA	0.843	0.889	0.838	0.900
WA	0.892	0.953	0.737	0.778
WV	0.858	0.892	0.796	0.828
WI	0.888	0.898	0.844	0.871
WY	0.926	0.985	0.931	0.978

NOTE: Figures in this table are derived by simple division of the 80/60 wage-replacement requirements for 1980 by AWW79. The table shows for each State the percentages of AWW's that would be necessary to achieve those goals.

# Examining Dependents' Allowances

Margaret M. Dahm  
Phyllis H. Fineshriber

The unemployment insurance (UI) program was established to provide some wage replacement in weekly cash benefits to those who earned the right to these benefits. Payment as an earned right, not as a result of need, is the important and crucial principle that distinguishes UI from income maintenance programs. Relatively objective tests of a person's past employment, of the reasons for separation from work, and of the facts surrounding current unemployment were created. The program scrupulously avoids consideration of the need or expenditures of any claimant. The only income questions are related to wages or other disqualifying income received for weeks being claimed.

UI is not a general program to take care of all the problems of all the unemployed. The Bureau of Employment Security defines it as follows:

Unemployment insurance has characteristics which distinguish it from other income maintenance programs, such as public assistance. There is no means test. Benefit amount and duration are defined by law so that workers can know in advance what benefits they will be entitled to if they are unemployed and eligible under the terms of the law.<sup>1</sup>

## History

In the Europe of 1935, UI systems generally provided flat weekly benefits related to the claimant's age, sex, marital status, and number of dependents. The framers of the U.S. system rejected flat benefits as inappropriate in view of the widespread distribution of wage rates in the United States. Instead, UI benefits were related to wages. The purpose of doing this was to provide a percentage of wages large enough to permit beneficiaries to meet their necessary or nondeferrable expenses for the week, but not so large as to interfere with their incentives to seek work.

By promptly replacing a percentage of unemployed workers' wages, the program maintains these workers' dignity and their positions as members of the labor force. The nature of the program also avoids investigations into claimants' personal lives. The drafters of the

UI system recognized that a wage-related system could not meet the needs of all beneficiaries because wages themselves are not always adequate.

Dependents' allowances were not given much thought in the early days of the program. They were not mentioned in the *Report of the Committee on Economic Security* or in the reports of the congressional committees on the Social Security Act. In the Social Security Board staff summary of the act's background, a short paragraph mentioned objections and said that each State must decide as a matter of social policy whether to pay higher benefits to all unemployed or to give preference to workers with family responsibilities.

Dependents' allowances were not included in the draft State UI legislation developed by the Committee on Economic Security and revised by the Social Security Board as guidance for meeting the requirements of the Social Security Act. Only the District of Columbia included dependents' allowances in its original law.

In 1938, when it became apparent that the complex benefit formulas were creating problems, the Social Security Board undertook to simplify them. The *Reports on the Simplification of the Benefit Formula* endorsed the earlier choice of wage-related rather than flat benefits. The *Interim Report* explained that administrative problems and the principle of compensation based on need led to rejection of dependents' allowances. The *Final Report* mentioned dependents' allowances only as a feature of the rejected flat benefits.

Between 1945 and 1950 basic benefits became increasingly inadequate because they failed to keep pace with wages. In 1945, for example, 79 percent of all beneficiaries received the maximum weekly benefit; in some States the proportion was even higher. Efforts to increase the maximum benefit level met with great re-

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sistance from legislatures. Consequently, many interested in increasing benefits turned to dependents' allowances as a way to increase benefits of some workers without a great overall increase in costs. Four States added dependents' allowances in 1945, and by 1950 there were 10 States with such provisions.

By 1947 the Administration was recommending the addition of allowances for dependents of UI claimants, but congressional advisory groups to the Ways and Means and Finance Committees did not recommend it. Though the House Ways and Means Committee's technical staff made no recommendations, it did state its belief that dependents' allowances introduced the concept of need into the UI program. The Senate Finance Committee's Advisory Council on Social Security recommended liberalization of benefits but did not mention dependents' allowances.

Seventeen States have paid dependents' allowances at some time, but the highest number paying them at any one time was 13. Twelve States now modify the wage-related benefit by additional payments if the claimant has compensable dependents as defined in the UI law.

In several States the UI agencies have studied and rejected dependents' allowances; in one State the agency recommended that the allowances in that State be eliminated—a recommendation that was not accepted. (These studies are summarized in Appendix B.)

## Recognition of Need

Dependents' allowances recognize that workers with dependents need to replace more of their lost wages than persons without dependents. There is not much agreement on whether these allowances are appropriate in a wage-based program: wages are paid for a job, not for the jobholder's dependents or other obligations. The practice of varying benefits on the basis of dependents introduces a principle of need, although it is said to be only an extension of the presumed need underlying the program, not a question of individual need. Despite statements that need is not at issue, the administrative steps to determine that individuals do in fact have compensable dependents involve inquiry into family income and responsibilities. It is impossible to demonstrate that dependents' allowances have kept basic benefits down, but they were generally adopted to raise benefits for some workers at a cost lower than would have been the result of a general liberalization. A comparison between States with and without dependents' allowances is suggestive: a higher proportion of States with dependents' allowance have basic maximums that are low compared to average wages.

Dependents' allowances are but one departure from the direct relationship of benefits to wages. Establishing

a maximum benefit also changes the wage relationship for workers with earnings greater than needed for the maximum weekly benefit amount (WBA). A maximum was nevertheless deemed necessary to avoid using a disproportionate share of the program's resources for high-paid workers. A weighted benefit schedule, giving a higher proportion of their former wages to lower-paid workers, is partially an acknowledgment that they needed it to maintain themselves and their families. It is also partially a recognition that low quarterly wages, reflecting periods of unemployment, might not be truly representative of a worker's usual wage.

Dependents' allowances, however, are a frank recognition of need. They attempt to adjust benefits to differences in need among workers with the same wage experience. One factor—the number of people who depend on a wage—is used to measure need. To avoid having to assess individual need, allowances are based simply on categories of dependents.

## Provisions for dependents' allowances

No UI law has ever provided dependents' allowances for everyone supported by claimants. The statutes define a compensable dependent in terms of both relationship and degree of support. The formulas for increasing weekly benefits limit the number of dependents' allowances and prescribe eligibility. These definitions and formulas have changed in many ways over the years. There are substantial variations among those of the 12 States that currently pay allowances.

*Compensable dependents.* Dependents have always been limited to specified relatives of the claimant. Restricting the definition to family members who generally receive support from the working members of the family simplifies administration. It also discriminates against many claimants who are in fact supporting dependents who are not within the prescribed degree of relationship. The limitations on relationship are especially serious if dependents' allowances are a substitute for adequate basic benefits.

Children under a specified age are defined as dependents by all 12 States; the age is 18 in 10 States, 16 in the other 2. All but two include an older child unable to work, and four include an older child who is a full-time student. "Child" includes stepchild in all but two States and adopted child in all but three, and it may include any child the claimant is legally or morally obligated to support. Eight States pay allowances only to the person who provided the most support for a child, two laws specify that it must have been more than half, and the others use such phrases as "wholly or mainly" or "principally." The other four States show considerable variation in the statutory requirements. One simply says "dependent in fact" and leaves it to the director to

establish procedures for determining who is entitled to an allowance. Another says "wholly or partially." One specifies that the claimant must provide more than half the support, unless the claimant and spouse together provide more than half the support; in that case the claimant need supply only one-fourth or more. Two states specifically include a child "for whom the claimant is under decree of order from court of competent jurisdiction to contribute to such child's support and for whom no other person is receiving allowances hereunder." (See Table D-1 in Appendix D.)

One provision is unique. It begins by requiring that the child be dependent upon the claimant in fact and be "wholly or mainly supported by the claimant." That requirement is then modified by one saying that no persons shall be eligible to receive dependents' allowances for any week during which their spouses are employed full time and are contributing some support to their dependent or dependents. Full-time employment is defined by the law as "wages, earnings, salary or other income equal to that amount which would be received for a 40-hour week."

Five States consider only children dependents. The other seven provide for a spouse to be a dependent, and two permit inclusion of other relatives. Six of the States specify that the spouse must be wholly or mainly supported by the claimant. The seventh does not specify the degree of support, but it requires that the spouse be living with the claimant and not working, specifically defined as having had no gainful employment in the 3 months preceding the claimant's benefit year *or* being unable to work because of a long-term or indefinite disability *or* pregnant. One State pays only for a spouse who is unable to work; two specify that the spouse must be currently ineligible for UI because of insufficient wage credits. One limits the spouse's income to 25 percent of the claimant's weekly benefit amount, with a ceiling of \$30. One State does not exclude a working spouse, provided the spouse is living with the claimant and the claimant provides more than half the support, defined by procedures as claimant income greater than 150 percent of the spouse's income.

Two States also provide for parents and brothers and sisters of the claimant if they are unable to work and are wholly or mainly supported by the claimant.

*Amount of the allowance.* Eight States add a fixed sum—ranging from \$1 to \$10, but generally \$5 or \$6, for each of one or more dependents—to the basic weekly benefit computed from wages. The maximum allowances are limited on the basis of number of dependents, amount of basic benefits, or past wages; these conditions may reduce claimants' allowances to less than the nominal amount for their number of dependents. Two States limit benefits so that no claimant entitled to the basic maximum can receive dependents' allowances. One State adds a percentage of the claim-

ant's average weekly wage for the allowance; amounts range from \$3 to \$23.

Two States have a formula that takes account of both wages and dependents. Finally, one limits dependents' allowances to claimants who have more than enough wages for the basic maximum weekly benefit amount. Such claimants will get a higher amount, but not a higher proportion of their average wages. This approach ignores the principal argument for dependents' allowances; workers with dependents need a greater proportion of their wages to meet their costs. (See Table D-2 in Appendix D.)

Eight States establish the number of a claimant's dependents for a benefit year at the beginning of that benefit year, and changes in dependency status during the year are not taken into account. Like some other provisions, this fixed number simplifies administration, but at the cost of unequal treatment of claimants with dependents. This provision was challenged as an unconstitutional failure to provide equal treatment by two Illinois claimants acting on behalf of themselves and others similarly situated. One appellant was a woman who was pregnant when she established her benefit year. The other was a man who married during his benefit year. In 1977 the U.S. District Court of the Northern District of Illinois held that the provision did not violate equal treatment.

## **Arguments Pro and Con Dependents' Allowances**

### **Arguments for dependents' allowances**

The basic argument for dependents' allowances has always been that workers with dependents have greater needs than those without. Because a greater proportion of their wages is spent on living costs, the reasoning goes, workers with dependents can receive a higher proportion of their wages without adversely affecting the incentive to seek work.

The basic philosophy behind this argument is that "unemployment is a social measure whose very purpose is to mitigate the deficiencies of the wage system . . . (and) . . . [UI moneys] must be distributed so as best to meet social needs."<sup>2</sup> Advocates always emphasize that *need* is not used in the welfare or relief sense, as reflected in the following statement by William Haber and Merrill Murray:

The counter argument is that dependents' benefits only introduce the concept of *presumptive* need; that is, a presumption that an unemployed worker with dependents needs more in benefits than a worker without dependents. The vital difference that still exists between unemployment insurance and relief is that no individual inquiry and determination is made as to whether the claimant actually needs the dependents' benefit in order

to house, feed and clothe the dependent. The claimant merely has to establish that he has legal dependents; his personal affairs are not investigated.<sup>3</sup>

Haber and Murray's work also makes clear that they are thinking of male family heads. They describe dependents' allowances as an economical way of providing for persons with dependents. Citing Nevada figures, they found that paying dependents' allowances to 36 percent of beneficiaries increased their average augmented benefits by 31.8 percent over basic weekly benefits for claimants with dependents while increasing average benefits for all claimants by only 12.9 percent. Haber and Murray do not give the distribution of recipients of allowances by sex; but, in 1968, when 34.4 percent of all beneficiaries in Nevada received allowances, 47 percent of the men but only 10 percent of the women received them.

Dependents' allowances are also advocated as a compromise in the argument over use of gross or take-home wages as the base for benefits. This argument is related to the impact on wages of payroll deductions, especially income tax deductions. A benefit based on gross wages represents a smaller percent of take-home pay for workers with tax deductions than for workers without such deductions. Use of take-home pay in the benefit formula leads to many complexities. It is argued, for example, that if deductions are considered, additions to wages such as employer-financed fringe benefits should also be considered. Providing a higher benefit for workers with dependents is in part a recognition that they have higher take-home pay because their income tax withholding is lower.

### Arguments against dependents' allowances

The basic argument against dependents' allowances is that they introduce need into a program designed to be wage-related. The weekly benefit is meant to replace a part of beneficiaries' wages to enable them to maintain themselves and their families between jobs. Like the normal standard of living, the weekly benefit is based on workers' wages, which do not reflect the number of dependents. Fixed costs such as mortgage payments, real estate taxes, and car expenses do not vary with the number of dependents.

It is difficult to distinguish between the argument that workers with dependents should get more because of their greater need and other arguments that advocate taking account of need. The reverse of dependents' allowances—reducing benefits paid to "secondary workers"—has been rejected on the grounds that it imposes a needs test not permissible under the Federal Unemployment Taxation Act (FUTA) and Title III. (Various proposals that impose needs tests are described in Appendix A.)

Theoretically, it is possible to avoid looking into

individual finances. Experience has been to the contrary. Legal relationship of a dependent has never been seen as sufficient justification for payment, but has always been modified by requirements for support to some degree. To enforce that support requirement, the claimant's financial status must be examined. How closely depends on the degree of support required. If the requirement is merely that the claimant contribute toward the dependent's support, it should take little or no investigation. But if the claimant must provide more than 50 percent of the support, verification requires considerable detail on the income of the claimant, the dependent, and other household members. In a 1977 case in Ohio, the Court of Appeals held that

Claimant and others in her position, male and female alike, are required to show that he or she is the provider of more than 50 percent of the care and support of one or more minor children so as to justify including claimant in a claim class other than class A. . . . Without some clear evidence of the computation leading to a claim of providing more than one half of the support of a child or children, any reviewing forum must find against the claimant. A complete financial picture must be provided as opposed to a mere recounting of the allocation of claimant's income. (*Chris Deichler v. Sybron Corporation, et al.*, Ohio Court of Appeals, 9th District, Lorain County, Ohio, No. 25448377.)

State practices on routine determinations differ. Some accept the claimants' statement that they provide over 50 percent support; others ask detailed questions about the possible income of children or determine a child's pro rata share of mortgage payments. Claimants have been required to show not only that their wages represent more than half the family income, but also that their wages were actually spent for more than half the costs to "house, feed and clothe" the dependents. The agency would need casework staff to review and verify the amount of support or risk paying allowances not due.

One of the justifications for dependents' allowances is that providing them is cheaper than increasing all benefits. The effect has been that some workers who are the sole support of dependents not included in the system receive lower benefits to finance the presumed need of claimants with eligible dependents. Perhaps on this account, Arizona repealed its provisions for dependents' allowances in 1955 and increased the basic weekly maximum from \$20 to \$30; it was one of the last four States to retain a maximum as low as \$20.

There is a tendency for States with dependents' allowances to cluster at the low end of the scale in the relationship of the basic maximum to average statewide wages. In 1957, when benefit maximums were generally inadequate, 6 of the 11 dependents' allowance States, but only 7 of the other 40 States, had maximums under 40 percent of average wages. By 1969, even though there had been some turnover in States with allowances,

11 States still had the allowances, and 6 States still had maximums below 40 percent, whereas the number in States without allowances had decreased slightly, to 5. In 1973, 5 States with dependents' allowances still had maximums below 40 percent, but none of the other 41 States had maximums that low. As of 1977, benefit maximums had increased compared to average wages. Four of the 12 States with dependents' allowances, however, had maximums under 50 percent, while only 6 of the other 40 were that low.

In general, workers with dependents tend to have higher wages than those without; so the presumptive needs of many can be met by higher maximum benefits, without the complexities of the allowances. One strong advocate of dependents' allowances, William Papier, said the following:

It should be noted that the case for dependents' allowances would be greatly weakened if the States without such allowances significantly increased their weekly benefit limits, for claimants with dependents typically earn considerably more than claimants without dependents and would therefore receive higher benefits based on their higher earnings.<sup>4</sup>

His observation is supported by the findings in a 1978 Arizona study of benefit adequacy. In that study, the same proportion of beneficiaries would have received relatively adequate benefits if either the maximum were increased to 55 percent of average weekly wages in the State or dependents' allowances were provided. The increased maximum, however, would also have reduced the proportion with relatively inadequate benefits.<sup>5</sup>

## Women's and Dependents' Allowances

One effect of dependents' allowances is clear: they discriminate against female claimants. The 1968 Task Force on Social Insurance and Taxes of the Citizens' Advisory Council on Women noted that these provisions operate more to the benefit of male than female claimants. It made the following recommendation:

In a wage loss insurance system, provision of additional allowances because of dependents should not be a substitute for an adequate wage-related benefit. If, however, dependents' allowances are provided, they should not be limited to high-wage workers; and the formulas should not discriminate against women workers.<sup>6</sup>

It is not the absence of dependents' allowances that women have seen as a source of unequal treatment, but the way they are provided. As the 1968 Report said, "It is the problem of determining dependency which make[s] the dependents' allowance provisions of particular concern in relation to the discriminatory treatment of women."<sup>7</sup>

While the situation now is not as adverse to women

as it has been, unequal treatment has not been eliminated. The discrimination is a reflection of the idea that the man is the family head, and, that when married women work, they are secondary workers, who work only for pin money and whose unemployment is of little or no consequence to the family.

The facts dispel the myth. Even in the period 1945 to 1950, when support for dependents' allowances was growing, a substantial number of married women worked and provided wages essential to the family. In 1977, 55 percent of the wives in husband-wife families had some work experience during the year; of the wives who worked, 42 percent had full-time work for 50 to 52 weeks. On the average, working wives contribute about one-fourth of the family income, and those who work full time contribute about 38 percent. In 1974, 2.5 million wives, or 12 percent of all wives who worked, contributed half or more of the family income.

## Statutory discrimination

Because dependents' allowances were enacted largely to raise the benefits of heads of households without enacting a general benefit increase, the statute included a number of provisions that clearly favored men. The statutes distinguished between a wife, who was a dependent if she was not working and was living with the claimant, and a husband, who was excluded at first in many cases. A husband was included only if he was wholly or mainly supported by the claimant, and sometimes only if he was unable to work. This distinction between the requirement of some support for a dependent wife and that of complete or substantial support for a dependent husband meant that a woman's finances were much more closely investigated than a man's.

With respect to children, laws sometimes presumed that the father was the support, or required more proof of dependency from a mother than from a father.

These specific sex differences in the law have been eliminated. With a few exceptions, however, the provisions still allow payment only to claimants who provide more than 50 percent of the support of their dependents. The effect is discriminatory because working wives usually earn lower wages than their husbands. An unemployed man whose average weekly wage has been \$200 and whose still-employed wife is earning \$195 would receive an allowance for the couple's one child. But an unemployed woman whose average wage has been \$111 and whose still-employed husband is earning \$112 could receive no allowance for any of their four children. Yet the stated reasons for dependents' allowances would call for payment to the second couple rather than the first.

One State has dealt with the problem by providing that, if the major support of a child comes from both parents, an allowance can be paid to a parent who

supplies as much as one-fourth the child's support. Another State ignores the relative income of the parents, on the assumption that children are supported by the joint income. So long as the former income of the claimant-parent was greater than 150 percent of any income of the child, the child may be claimed as a dependent.

The tests of support are, of course, in terms of relative income. They ignore the question raised by Representative Martha Griffiths, in a Ways and Means Committee hearing: "Whose wages pay for the children's shoes, and whose buy fishing equipment?"

One State still has a formula under which dependents serve to extend the benefit maximum to a higher level but not to increase the ratio of benefits to wages. The maximum is \$74 for workers with no dependents and goes up to \$124 for those with four dependents or more. Under this law only workers with high-quarter wages of \$1,700 or more can receive added amounts because of dependents; only those with high-quarter wages of \$2,475 can receive the maximum \$124, and then only if they also have at least four dependents. Because most women have lower wages than men, fewer women can qualify for additional benefits, even in households they head.

These differences in how dependents' allowances affect men and women have been defended as merely the reflection of wage scales by a wage-related program. They may reflect wage scales; but, when dependents' allowances are added, the wage principle has already been compromised.

### **Discrimination in administration**

Even without the statutory differences, the administration of the dependents' allowance provisions often discriminates against women. For example, one State's procedures call for careful questioning of claimants in cases of questionable eligibility for the allowances. "Questionable eligibility for dependency allowances," it states, "will include, but not be limited to, the following cases. . . ." married female claimants with employed spouse." There is no comparable category for male claimants.

Another State's procedures still state that children are presumed to be "principally supported by their fathers." The strength of this presumption is clear from the fact that any other arrangement is set out under the heading "Exceptions." There, the provisions state that, if husband and wife are not separated, both must sign a witnessed statement giving total income of each parent for the preceding 12 months as well as a statement that the wife contributes more than half the children's support.

As long as "support" requires more than "contributing to the support of . . .," the agency must inquire into the family finances. Pennsylvania, for example, assumes

that children are dependent on the parents' joint income, and either spouse can claim. But the claimant's earnings must exceed the dependent's income by more than 50 percent; that is, if the dependent's income is \$30 a week, the claimant's earnings must have been more than \$45. For this purpose, income includes such things as rental income, interest, and dividends on stock, as well as wages, pensions, and disability benefits.

In Michigan, the claims taker must determine whether dependents meet written criteria. These detail the expenditures to be considered in child support, such as the child's proportionate share of rent and installment payments, and value of items purchased earlier, such as food and fuel. These criteria also require detailed information on income not furnished by the claimant but considered part of total support, such as court-ordered child support, the child's social security payments, and earnings or scholarships.

The following testimony to the National Commission on Unemployment Compensation from the Women's Council of the United Auto Workers is relevant:

Some agency personnel, either due to force of habit based on former rules or due to their present attitude of sex discrimination, do not treat unemployed women the same as they treat unemployed men. The questionnaires indicate that women are still required to give more information and answer more questions than men in order to be able to claim unemployment insurance for their dependents. In addition, sometimes receipt of very small amounts of child support (such as \$10 a week) has caused agencies to deny the unemployed woman her right to claim her children as dependents even though the \$10 a week stipend is clearly less than half the support of her children. In addition, where a court order awards a woman more than half of the support of her children from her former husband, but she in fact is not receiving this money because her former husband has been delinquent, the MESD branch offices have still not allowed her to claim her children as dependents.

This testimony illustrates one of the additional difficulties for a woman: the treatment of nonwage income, such as child support payments or the child's social security benefits. With wages, the question is simply "Which wage is higher?" But with the other types of income prevalent in households not headed by a father, the question is "How much of the mother's wage is spent for child support and how does it compare with other payments?"

An Ohio court case makes the point. In 1973, a man with a working wife could receive dependents' allowances for his two children if his wages were \$149 and his wife was earning \$148. But, as the Ohio Board of Review held, a divorced woman with an average weekly wage of \$149 could not get an allowance for her two children because their father was making court-ordered support payments of \$40 a week. The Board reviewed the claimant's expenditures for a 2-month period and found it could not determine how much of the expense

items were for "necessaries," nor how much she would have spent for them in the absence of the children. "As a result of her failure to show the cost of the support of her daughters," the Board presumed that the father's \$40 must have been their chief support.

Current Ohio procedures, issued in 1975, seem to have dealt with this situation. If a child resides with the claimant who certifies to having provided more than 50 percent support for the 90 days preceding the benefit year, the child is considered a dependent. As before, however, the claimant's statement is not automatically accepted. In the 1977 Lorain County case previously referred to, the claimant said she supplied more than half the support of three children, but the agency denied her claim on the grounds that for 90 days she had been receiving UI of less than her husband's income of \$200 a week. The decision examined what support was paid from UI and what came from his wages. The Court also refused to admit evidence that the claimant said would show that the local employment service qualified men automatically but put a greater burden on women to prove their eligibility.

In another State, a widow was denied an allowance because her child's social security benefit was more than half her wages. The argument was that, because her wages supported two people, only half the wages could be considered child support.

When the claim is denied, claimants are given written determinations and told of their appeal rights. Very few dependents' allowance appeals turned up in the recent cases reviewed, and they are summarized in Appendix C. Only one appeared to involve any question of discrimination. In that case, although a claimant had been separated from her husband when she bore her child, she was denied an allowance because "at the time of filing . . . the claimant and child resided with her husband who was the head of the household." There was nothing in the decision on the income of the claimant or her husband.

### **Payment experience**

In States that pay allowances, the proportion of female beneficiaries receiving allowances is lower than the level of women's wages would suggest. Almost 17 percent of the women (but 48 percent of the men) received allowances in these States in 1977. This 17-percent average conceals a wide range, from 5.2 percent of the women in Maine to 31.7 percent in Rhode Island. Of the women who received allowances, half had two dependents. (See Tables D-3, D-4, and D-5 in Appendix D.)

Ten States have paid dependents' allowances continuously since 1968; the proportion of men and women receiving these allowances during the period 1963 to 1977 is shown in Table D-6 in Appendix D. In any one year, States varied on this score, and the record of some States varied considerably over the 10-year

period while others varied little. This record shows the effect of statutory provisions. In Massachusetts, for example, the proportion of women receiving allowances ranged only from 4.0 percent in 1968, 1969, and 1970 to 5.5 percent in 1977. By contrast, in Rhode Island the proportion stayed between 2.4 and 3.2 percent for the first 6 years under a statutory requirement that women (but not men) prove their right to allowances. That provision was found unconstitutional by the court at about the same time it was repealed by the legislature in 1973. Under current law any claimant must show the right to the allowance; in practice, the statement on the claim form is generally accepted. In the 4 years following this legislated change, the proportion of women ranged between 28.0 and 31.7 percent.

### **Recommendations**

Dependents' allowances are inappropriate in a wage-related UI system. Theoretically, they are based on presumed need, but their administration has meant inquiry into the finances and responsibilities of individual claimants. The allowances do not provide extra benefits to all claimants who provide support for another individual but tend to be a substitute for adequate benefits. They still tend to operate to the disadvantage of women claimants. It is therefore recommended that the NCUC oppose them.

It is doubtful, however, that dependents' allowances will be eliminated without a Federal standard, and the Congress seems unlikely to approve such a standard. For that reason, the NCUC should recommend that, if such allowances are adopted by any State, the provisions should be in line with UI principles.

Most important, dependents' allowances should be considered only if the basic benefits are adequate. The notion that dependents' allowances have made up for inadequate benefits is belied by statistics that show how many people actually received them. In the 12 States with dependents' allowances, 63 percent of all beneficiaries in 1977, and 52 percent of male beneficiaries, were not eligible for allowances. None of the States paid allowances to half their beneficiaries, and only four paid half their male beneficiaries. Therefore, the NCUC should recommend that no State provide dependents' allowances unless the basic weekly benefit is at least half the average weekly wage for claimants earning up to 120 percent of the statewide average weekly wage.

Where benefit formulas meet the test of adequacy, and a State wishes to provide dependents' allowances, such allowances should be equitable, should not require detailed scrutiny of the family finances of any claimant, and should provide enough benefits to warrant the added complexity of their administration.

Children are the most common group of dependents.

They should count as dependents if they are under 18 or are unable to work or if they live with the claimant or are receiving some support from the claimant. This test would permit either or both parents to claim a child—an equitable test, for support comes from joint income. The fact that a divorced father was making support payments would entitle him to an allowance but would not cut off his former wife's claim based on her wages. It would not require an inquiry into income received from other family members. Since 1968, Social Security has taken this approach and provided children's benefits on the account of either parent to a dependent child. Children are deemed dependent on a father, mother, adopting father, or adopting mother unless the claimant is neither living with the children nor contributing to their support.

The next most common group of dependents is spouses. The simplest way to avoid inquiry into family finances would be to count spouses as dependents if they are living with claimants or receiving regular support from them and not working or currently eligible for UI.

It would also be fair to provide for claimants' parents and siblings, because the same presumption can be made about the need for greater wage replacement. The requirement for these groups might retain the major-support requirement.

The amount of the allowance should be large enough to be a real help in meeting expenses, but not large enough that total weekly benefits equal or exceed the claimant's wage. Up to the limit required by the claimant wage ceiling, the amount for each dependent should be flat, not a percentage of the claimant's benefit amount. Dependents' allowances should be available to claimants at all qualifying wage levels. These tests would not be met by provisions for an allowance of \$1 for each dependent or by those that limit allowance payments either to claimants not eligible for the basic maximum or to those with higher earnings than needed for the basic maximum.

## Notes

1. *Employment Security Review*, August 1955, p. 1.
2. 1965 *Annual Report of the New York State Advisory Council on Employment and Unemployment Insurance*, quoted in Ruth Entes, *Family Support and Expenditures Survey of Unemployment Insurance Claimants in New York State, September 1972–February 1974* (New York State Department of Labor, Office of Research and Evaluation; issued by the U.S. Department of Labor, Employment and Training Administration, 1977).
3. William Haber and Merrill G. Murray, *Unemployment Insurance in the American Economy* (Homewood, Ill., Richard D. Irwin, Inc., 1966), p. 193.

4. William Papier, "Standards for Improving Maximum Unemployment Insurance Benefits," *Industrial and Labor Relations*, April 1974, p. 389.

5. Paul L. Burgess and Jerry L. Kingston, *The Adequacy of the Unemployment Insurance Levels* (U.S. Department of Labor, Employment and Training Administration, 1978). The dependents' allowances proposed were \$5 per dependent, up to \$15 or one-half the weekly benefit amount. Benefits are considered relatively adequate if they meet 86 percent or more of the beneficiary's share of necessary household costs and relatively inadequate if they meet less than 36 percent. Beneficiaries' share of household costs is the proportion of necessary household expenses that their wages met in a period preceding unemployment.

Provision	Percentage of beneficiaries' share of costs met	
	86 percent or more	Less than 36 percent
Existing law (maximum of 47 percent of average State wage)	23.2	10.8
Maximum of 55 percent of average State wage	28.2	6.7
Dependents' allowances	28.3	10.8

6. *Report of the Task Force on Social Insurance and Taxes* (Citizens' Advisory Council on Women, 1968), pp. 20–21.

7. *Report of the Task Force on Social Insurance*, p. 21.

8. 1965 *Annual Report of the New York State Advisory Council*, in *Family Support and Expenditures Survey*.

## Appendix A: Entitlement to Unemployment Benefits Based on Considerations Involving Need: Conformity With Requirements of Federal Law

Proposals for amendments to State employment security laws which would have introduced an element of need in the payment of unemployment benefits have been viewed by the Bureau from time to time. Because these proposals were more frequent during the past two State legislative sessions than at any previous time and are likely to be introduced in the future, we believe a discussion may be helpful. The position of the Department of Labor and its predecessors has been that any proposal which would consider entitlement to bene-

fits on the basis of need, rather than as a matter of right, would be inconsistent with Federal law. The rationale for this position is based on the legislative history of the Social Security Act and the construction of the Act subsequent to its enactment.

### Legislative history

The House Committee on Ways and Means, during its consideration of H.R. 7260 (the social security bill) discussed the difference between its various parts. In the discussion of unemployment compensation, the following statement appears:

The essential idea in unemployment compensation, more commonly but less accurately called "unemployment insurance" is the accumulation of reserves in times of employment from which partial compensation may be paid to workers who become unemployed and are unable to find other work. Unemployment insurance cannot give complete and unlimited compensation to all who are unemployed. Any attempt to make it do so confuses unemployment insurance with relief, which it is designed to replace in large part. It can give compensation only for a limited period and for a percentage of the wage loss.

Unemployment compensation, nevertheless, is of real value to the industrial workers who are brought under its protection. In normal times it will enable most workers who lose their jobs to tide themselves over, until they get back to their old work or find other employment, without having to resort to relief. Even in depressions it will cover a considerable part of all unemployment and will be all that many workers will need. Unemployed workmen who cannot find other employment within reasonable periods will have to be cared for through work relief or other forms of assistance but unemployment compensation will greatly reduce the necessity for such assistance. Unemployment compensation is greatly preferable to relief *because it is given without any means test*. It is in many respects comparable to workmen's compensation, except that it is designed to meet a different and greater hazard. [Emphasis added.] (House Report No. 615, 74th Congress, 1st Session [1935].)

The report of the Senate Committee on Finance contains a similar statement (Senate Report No. 628, 74th Congress, 1st Session [1935]):

The essential idea in unemployment compensation is the creation of reserves during periods of employment from which compensation is paid to workmen who lose their positions when employment slackens and who cannot find other work. *Unemployment compensation differs from relief in that payments are made as a matter of right, not on a needs basis, but only while the worker is involuntarily unemployed.* [Emphasis added.]

Thus, it is clear from the legislative history that Congress viewed unemployment compensation as distinct from relief and as not based on need. The language of the Federal law carried out the Congressional intent.

### Construction of Federal law

Sections 303(a)(5) of the Social Security Act and 3304(a)(4) of the Internal Revenue Code of 1954 require, as a condition for certification of State unemployment compensation laws, that such laws provide, insofar as here pertinent, for the use of all monies withdrawn from the State unemployment compensation fund solely in the payment of unemployment compensation. "Compensation" is defined in Section 3306(h) of the Internal Revenue Code as "cash benefits payable to individuals *with respect to their unemployment.*" (Emphasis added.) Thus, the prohibition against a "needs" test as a condition for the payment of compensation comes into the Federal Unemployment Tax Act implicitly through the definition of "compensation." The limitation on the expenditure of monies withdrawn from unemployment compensation funds negates, by necessary implication, "needs" as a basis for the use of such monies. Involuntary unemployment, and not the need or lack of need for compensation, must be the determinant of eligibility for compensation.

This view of the requirements of the Federal law is supported by the nature of State unemployment compensation programs established pursuant to the Federal law. Payment of compensation under these programs is designed to partially compensate unemployed workers for loss of income due to involuntary unemployment. The weekly benefit amounts generally vary proportionately with claimants' earnings, within stated minimums and maximums. This feature is clearly contrary to the "needs" concept inasmuch as workers with greater earnings (and presumably with greater financial resources in periods of unemployment) receive greater amounts of compensation than workers with smaller earnings. Indeed, because of the prevailing requirement for a minimum amount of earnings as a condition of eligibility, workers who do not meet this minimum, and who consequently may be most in need of compensation, are not entitled to it at all.

### State proposals

The proposals which have been reviewed in the Bureau can be grouped into two classes: (1) those which would pay benefits because of need and (2) those which would directly or indirectly deny the payment of benefits because of lack of need. Following is a brief discussion of these proposals, none of which were enacted because of the conformity question presented by them:

A bill introduced in Wisconsin in 1949 (No. 289, A) would have provided extended benefits to persons who had exhausted their right to regular benefits for the period during which they were in need as defined in the State laws on public assistance and general relief. Following advice to the agency that the bill, if enacted,

would raise a question of conformity under Federal law, the administrator asked for answers to the following questions:

- (1) Would Wisconsin's amended law be certifiable for the allowance of credits and additional credits under the federal unemployment tax act (a) after enactment of the bill and (b) after extended benefit payments actually began?
- (2) Would Wisconsin's amended law and its administration be certifiable for federal administrative grants under Title III of the Social Security Act?  
  
If so, would such grants include (i.e., allow for) the added amounts required to administer the extended benefits provided by Bill No. 289, A?
- (3) What is your opinion as to the wisdom or desirability of such a program for "extended benefits" based on need, and of its financing by a state unemployment compensation fund?

The administrator was advised that the Wisconsin law, if amended by 289, A, as introduced, would not be certifiable for the allowance of normal credit or additional credit under the Federal Unemployment Tax Act as of December 31, following adoption of the amendments since the Wisconsin law would no longer meet the requirements of section 3304 of the Federal Act. The Wisconsin law would not be certifiable for administrative grants under Title III of the Social Security Act after the effective date of the amendments to administer either regular or extended benefits because it would not meet the requirements of section 303(a)(5) of the Social Security Act. As for our opinion with respect to the desirability or wisdom of a program of extended benefits based on need, we believe the introduction of such a concept would be detrimental to the unemployment insurance program. Under the American unemployment insurance system, benefits are based on earned rights and should not be confused or combined with relief payments. Extended benefits during a prolonged period of unemployment which are based on rights earned but not needed during past periods would, in our opinion, be entirely within the scope of the American system.

A bill introduced in New Jersey in 1949 (A. 518) would have amended the employment security law to provide that an individual who left his job voluntarily without good cause would be disqualified until he earned in employment at least 4 times his weekly benefit amount; provided, however, if he could prove he was in need, the disqualification would be for the week of occurrence and the 5 weeks immediately following and his benefits would be reduced by 6 times his weekly benefit rate. The agency was advised that "the proviso clause would raise a serious conformity issue under the Social Security Act and the Internal Revenue Code because under this proviso benefits would be determined by need."

A bill which passed one house of the Alaska legislature in 1959 (S.B. 91) contained the provision that an individual who had earned at least \$7,000 in base-period wages should be required to serve an additional waiting week for each \$1,000 in wages up to a maximum of 6 weeks. This provision was deleted by the other house after the Bureau had informed Alaska officials that it presented a question of conformity with section 303(a)(5) of the Social Security Act and section 3304(a)(4) of the Internal Revenue Code. The Bureau took the position that the provision, in essence, introduced a "needs" test as the basis for paying compensation, i.e., high-paid workers did not need benefit payments as soon as low-paid workers, and that such a test is prohibited implicitly by the definition of "compensation" in section 3306(h) of the Internal Revenue Code. Furthermore, acceptance of the principle underlying the proposal would be inconsistent with the basic principle of unemployment compensation as a statutory right. If the logic of the proposal were to be accepted, the amount of earnings necessary to impose an additional waiting week could be lowered and the maximum number of weeks required for a waiting period increased to such an extent that a number of individuals could, in effect, be barred from receiving benefits.

Two bills were introduced in Oregon in 1959. One (H.B. 236) provided, among other things, that individuals whose total wages and benefits received during the calendar year exceeded \$6,000 should not be eligible to receive benefits. The agency was advised that enactment of this bill would present a question for the Secretary's determination as to whether payments under such restrictions are unemployment compensation within the meaning of section 303(a)(5) of the Social Security Act and section 3304(a)(4) of the Internal Revenue Code. In our opinion, provisions which deny benefits to individuals who have worked in covered employment solely because they have earned more than a specified amount during a specified period establish, in fact, a "needs test" for receipt of benefits. The only basis for so denying benefits is that the individuals have earned enough to take care of themselves during periods of unemployment and, thus, do not "need" unemployment insurance benefits. If Congress had intended that workers who earned above a specified amount should not be eligible for benefits under the State systems, it seems logical to assume that it would have followed the practice of other systems which exclude from coverage all workers with earnings above a specified amount.

The other bill (S. 172) would have required as a condition for eligibility that a married claimant's spouse be unemployed. Similar advice with respect to this bill was furnished the agency since the same principle is involved.

The Commissioner of the Washington employment security agency (during the 1959 legislative session)

advised the Bureau that a House Committee was exploring the possibility of establishing a special qualifying wage requirement for unemployed workers who have a working spouse. The wife of a working husband would be required to meet a higher qualifying wage requirement than would an unmarried claimant. The special requirement would apply in (1) cases where the unemployed spouse is making a predetermined percent, such as 50 percent, of the combined income, or (2) in cases where the unemployed worker's spouse is employed and earning as much as or more than the average weekly wage of all covered workers or a specified percentage thereof. Another suggestion was to establish as a basic eligibility requirement base-year earnings less than \$6,000 or some other specified amount.

The Bureau advised that any proposal which would make qualifying requirements more difficult to meet for certain persons who supposedly have less need for benefits or to limit benefits of such persons in effect introduces a needs test into the program. Introduction of such a test has heretofore been held to raise a question of conformity with Federal requirements.

Proposals made in 1961 followed the same pattern and similar advice was furnished with respect to them. For example, we were asked whether a proposal to amend the Minnesota law to limit the maximum weekly benefit to \$33 if an individual is a secondary wage earner in a household where the head of the family is gainfully employed would raise a question. The maximum weekly benefit amount is \$38.

An Ohio bill (H.B. 3) provided extended benefits up to 13 additional weeks to unemployed individuals who had exhausted their regular benefits and who had dependents. The Speaker of the House was reported as saying that the extended program should be confined to individuals who showed a real need. Following a discussion with agency officials as to the question presented if such a bill were enacted, the provision was removed.

A bill introduced in North Dakota (S.B. 232) included an amendment providing that an individual shall be disqualified for benefits "for the week for which he is receiving or has applied for and will receive payments under any farm acreage retirement plan or conservation reserve program administered by the Federal or State government. If the payment referred to, computed to a weekly amount, is less than the benefit payment which would otherwise be due, the claimant shall be entitled to receive for such week, if otherwise eligible, benefits reduced by the amount of such payment. . . ." Following advice that enactment of this provision would raise a Federal question, it was deleted by amendment.

A bill introduced in Wyoming (H.B. 63) included an amendment providing that "if the claimant's work is of a seasonal nature and the average yearly wage of his occupation before deductions is in excess of \$5,000

per year, the individual shall be ineligible for benefits during the period of normal seasonal unemployment." This provision was also deleted following discussion with agency officials.

A proposal in California (H. 2073) provided that the maximum unemployment insurance weekly benefits paid to a husband and wife living together who both filed claims shall be one and one-half times the maximum payable to an individual. The legislature took no action on this bill.

All of the proposals discussed above, in essence, introduce a "needs" test as the basis for paying unemployment compensation. In our opinion, such a test is prohibited implicitly by Federal law; acceptance of the principle of any of these proposals would be inconsistent with the basic principle of unemployment compensation as a statutory right.

U.S. Department of Labor  
Bureau of Employment Security  
Division of Legislation

October 3, 1961

## **Appendix B: State Studies on Dependents' Allowances**

### **New York**

*Dependents' Allowances in State Unemployment Insurance Laws: A Planning Office Report, December 1963.* This report analyzes dependents' allowances in the light of UI program objectives, other elements in the benefit formula, positions for and against allowances, and the provisions and experiences of various State laws. It estimates costs for a possible New York proposal. It does not make recommendations, and New York has never adopted such allowances.

There are four chapters in the report.

Chapter I discusses the objectives of UI, particularly the duration and benefit amount. The 1958 benefit adequacy studies are cited to support statements that primary beneficiaries—heads of households—fare worse than single and secondary beneficiaries. Part of the reason was the inadequate maximum weekly benefit.

Chapter II deals with positions on dependents' allowances. Various sources are cited in favor of the allowances. It begins with Harry Malisoff, *Insurance Character of Unemployment Insurance*, Upjohn, 1961, who regards dependents' allowances as "a controlled injection of a welfare principle" and preferable to overall higher benefits that he regards as a "standing invitation . . . to secondary or tertiary workers to learn how to combine a light attachment to the labor market with intervals in unemployment benefit status." The

report also quotes Richard Lester's *The Economics of Unemployment Compensation*, 1962, on the problems of inadequate benefits for family heads and too large a proportion of benefit funds going to secondary workers, mostly women without dependents. William Haber, Fidele Fauri, and Wilbur Cohen's *Significant Findings on the Impact of the 1957–1958 Recession in Relation to Unemployment Insurance*, 1960, is also quoted as supporting dependents' allowances because the major impact of the recession was on younger workers with families.

Most of the chapter, however, is made up of questions from reports of New York legislative committees. A 1947 legislative document of the New York State Joint Legislative Committee on industrial and labor conditions is quoted as saying that the allowances in the four States that then paid them were a legislative compromise between labor demands for higher benefits and employer demands for keeping disbursements within conservative limits.

The New York State Joint Legislative Committee on UI discussed dependents' allowances in its 1957 and 1958 legislative documents but did not make a recommendation in either year. The New York State Advisory Council on Employment and Unemployment Insurance also considered dependents' allowances a number of times, with public and labor members generally favoring them and employer members opposed.

The 1963 report found that the administrators of the 11 States with allowances opposed them in theory, and it pointed to neglect of basic benefit rates and problems in administration, not the least of which is the problem of identifying and corroborating the number of dependents. A "recent study in Ohio" was cited as showing a serious incidence of fraud.

Chapter III analyzes the State provisions: the definition of "dependent"—chiefly family relationship, not degree of support; formula for amount; charging of benefits to employers' accounts; partial benefits; duration; interstate claims; and verification, fraud, and overpayment.

Most of the States indicated they did little routine verification. Three States indicated some distinction in procedure between men and women claiming allowances.

Chapter IV outlines a possible proposal and estimates that it would increase costs by 6.8 percent.

## New Mexico

*Dependency Allowance Study Actuarial Research Section, Unemployment Compensation Division, Employment Security Commission, September 1970.* This study has three parts—a section on the arguments for and against the allowances, one summarizing provisions in the 11 States that had them then, and one on cost. The

report makes no recommendations, and New Mexico has not adopted such allowances.

The pros and cons are presented under the heading *Need*. The arguments against are that need should not be considered in a wage-related program, that payment could result in benefits too close to spendable income for some beneficiaries, and that administrators in States that have allowances do not like them—this last point is quoted from the 1963 New York report. The arguments for are the greater need of persons with dependents, combined with a finding that most New Mexico claimants without dependents are secondary workers. Most of the section consists of quotations from various Upjohn publications on the theme that the problem of getting adequate benefits is the number of secondary and otherwise loosely attached workers in the labor force.

The cost section shows the 1961 costs for nine States for which such data were available. The range was from 11.1 percent of total benefits in Alaska to 4.6 percent in Rhode Island. New Mexico's cost for 1969, using an allowance of 10 percent of weekly benefit amount for each of three dependents, would have been increased 16 percent; the allowances would have been 13.8 percent of total benefits including allowances.

## Alaska

*Arguments For and Against Dependency Allowances, prepared by the Alaska agency (undated, but from context, after 1976).* The agency set forth five arguments for such allowances: they provide for the nondeferrable expense of claimants with dependents; they cost less than an increase in all benefits; they provide for presumed need, not individual need; benefits adequate for claimants with the most dependents would be too high for those with less presumed need; and workers with dependents now get a smaller proportion of take-home pay than those without, because of income tax deductions.

There were seven arguments against allowances: basing benefits on need violates the wage replacement principle; the allowances can be an employment disincentive for lower-income and middle-income claimants; they tend to keep basic benefits too low; they overlap with other Federal, State, and local programs providing assistance to unemployed persons with dependents; they create administrative problems and increased administrative cost; nine of the 12 States with allowances went broke and had to borrow; employer taxes are on wages, not size of family; employees' wages are paid for work performed, not size of family, so allowances blur the distinction between insurance and welfare.

Alaska has dependents' allowances and has had them for some years.

## Appendix C: Summary of Dependents' Allowance Cases Reviewed

### Indiana

Referee 77-1BA-422, 7/25/77

Review Board 77-R-1200, 10/25/78

Claimant appealed on disqualifications for voluntary quit and on denial of dependents' allowance. Voluntary quit disqualification was upheld, but she had earned enough in subsequent employment to purge disqualification. Claim filed 3/14/77. On 7/19/76, claimant had baby. Some time later, claimant reconciled with husband and went to Florida to live with him. Dependents' allowance denial was upheld on grounds she was living in household headed by her husband. Board of Review upheld denial, saying, "At time of filing a claim for benefits on March 14, 1977, the claimant and child resided with her husband who was the head of the household."

### Rhode Island

Referee 78 UC 4212, 12/8/78

Claimant earned \$7,700 during previous year. Her husband earns approximately \$12,000. That difference does not substantiate her claim of more than 50 percent support. Allowance was denied.

Referee 78 UC 3776, 11/17/78

Claimant claimed allowances for four children, indicating on claim form "natural children." He does have the children living with him and provides more than 50 percent of their support. He collected \$400 in dependents' allowances. But the children are his grandchildren. Thus, he was not entitled to the allowances.

### Massachusetts

Board of Review H-70228-OP, 5/23/77

Claimant is main support of his wife's four minor children from a previous marriage. He is neither the natural parent nor parent by adoption, and there is no pending adjudication for adoption. Therefore the Board decided he was not entitled to dependents' allowances and he had received \$576 to which he was not entitled.

### Pennsylvania

Referee 78-H-1089, 9/29/78

Board of Review B-78-H-1089, 12/20/78

Claimant claimed dependents' allowance for his spouse and child. He did not live with them and produced no evidence that he contributed to their support. Referee held he was not entitled to allowance and had been overpaid \$120. Board of Review upheld Referee's decision.

## Appendix D: Tables

TABLE D-1. Dependents included under provisions for dependents' allowances, 12 States

State	Dependent child <sup>1</sup>			Other dependent			Number of dependents fixed for benefit year
	Maximum age specified	Older, not able to work	Full-time student	Spouse	Parent <sup>2</sup>	Brother or sister	
Alaska	18 <sup>3</sup>	X <sup>3</sup>					X
Conn.	18 <sup>4</sup>	X <sup>4</sup>	X <sup>4</sup>	X <sup>5</sup>			
D.C.	16	X		X <sup>6</sup>	X <sup>6</sup>	X <sup>6</sup>	X
Ill.	18 <sup>7</sup>	X <sup>7</sup>		X <sup>8</sup>			
Ind.	18 <sup>3</sup>			X <sup>8</sup>			X
Maine	18	X	X	*			
Md.	16						X
Mass. <sup>9</sup>	18 <sup>3</sup>	X <sup>3</sup>	X <sup>3</sup>				X
Mich.	18 <sup>3</sup>	X <sup>3</sup>	X <sup>3</sup>	X	X <sup>6</sup>	X <sup>6</sup>	X
Ohio	18 <sup>3</sup>	X <sup>3</sup>		X <sup>8</sup>			X
Pa.	18	X		X			
R.I.	18	X					X

<sup>1</sup> Includes stepchild by statute in all States except Maine and Massachusetts; adopted child by statute in Alaska, Illinois, Indiana, Maine, Maryland, Michigan, Ohio, Rhode Island; and by inter, retention in Massachusetts.

<sup>2</sup> Parent includes stepparent in District of Columbia; legal parent in Michigan.

<sup>3</sup> Child must be unmarried in Alaska and by interpretation in Massachusetts; must have received more than half the cost of support from claimant for at least 90 consecutive days for the duration of the parental relationship in Indiana, Michigan, and Ohio.

<sup>4</sup> Federal District Court has held that the term *children* includes any child for whom claimant stands in place of the parents (*Vaccarella v. Commissioner*).

<sup>5</sup> Lawful husband or wife living with claimant and not gainfully employed any time in 3 months preceding benefit year, or mentally or physically disabled for long or indefinite time, or pregnant.

<sup>6</sup> Not able to work because of age or physical disability or physical or mental infirmity. In Michigan, parents over 65 or permanently disabled for gainful employment; brother and sister (under age 18, or 21 if full-time student [no age limit if unable to work]), orphaned, or whose living parents are dependents.

<sup>7</sup> Claimant must provide more than half the support; but if claimant and spouse together provide more than 50 percent and are members of the same household, claimant need supply only one-fourth or more of support.

<sup>8</sup> Spouse must be currently ineligible for benefits in the State because of insufficient base-period wages in Illinois and Indiana; may not be claimed as dependent if average weekly income is in excess of 25 percent of claimant's average weekly wage or \$30 in Ohio. In Maine, no dependents' allowance is paid for a spouse or for children for any week in which spouse is employed full time and is contributing to support of dependents.

<sup>9</sup> Only dependents residing within the United States, its territories, or its possessions.

TABLE D-2. Allowances for dependents, 12 States

State	Weekly allowance per dependent	Maximum weekly allowance	Minimum weekly benefits		Maximum weekly benefits		Full allowance for week of partial benefits	Maximum potential benefits	
			Basic benefit	Maximum allowance	Basic benefit	Maximum allowance		Without dependents	With dependents
Alaska	\$10	Lesser of WBA <sup>a</sup> or \$30	\$18	\$18	\$90	\$30	Yes	\$2,620	\$3,360 <sup>1</sup>
Conn.	\$ 5	½ WBA	15	7	128	64	Yes	3,328	4,992
D.C.	\$ 1 <sup>a</sup>	\$3 <sup>3</sup>	14	3	172	0 <sup>a</sup>	Yes	5,848	5,848 <sup>a</sup>
Ill.	\$ 3-\$23	\$3-\$55	15	8	121	24	Yes	3,146	3,770
Ind.	\$ 1-\$13 <sup>4</sup>	Schedule \$1-\$50 <sup>4</sup>	35	0 <sup>4</sup>	74	50 <sup>4</sup>	No <sup>6</sup>	1,924	3,224
Maine	\$ 5	½ WBA	12	5	90	45	Yes	2,340	3,510
Md.	\$ 3	\$12 <sup>3</sup>	10	12	106	0 <sup>a</sup>	Yes <sup>4</sup>	2,756	2,756 <sup>a</sup>
Mass.	\$ 6	½ WBA	12	6	122	61	Yes	3,660	5,490
Mich.	\$ 1-\$12 <sup>7</sup>	Schedule \$1-\$39 <sup>7</sup>	16	8	97	39	No <sup>6</sup>	2,522	3,536
Ohio	\$ 1-\$28 <sup>7</sup>	\$69 <sup>7</sup>	10	6-8	120	69	Yes	3,120	4,914
Pa.	\$ 5 <sup>7</sup>	\$8	13	8	152	8	No	4,560	4,800
R.I.	\$ 5	\$20	26	20	110	20	Yes	2,860	3,380 <sup>1</sup>

<sup>1</sup> Assuming maximum weeks for total unemployment; weeks of partial unemployment could increase this amount because full allowance is paid for each week of partial unemployment.

<sup>2</sup> Weekly benefit amount.

<sup>3</sup> Same maximum weekly benefit amount with or without dependents' allowances. Claimants with lower weekly benefit amount may have benefits increased by dependents' allowances.

<sup>4</sup> Limited to claimants with high-quarter wages in excess of \$1,700 and 1 to 4 dependents in Indiana.

<sup>5</sup> Dependents' allowances considered as part of weekly benefit amount.

<sup>6</sup> Not more than 26 payments for dependents may be made in any one benefit year.

<sup>7</sup> Benefits paid to claimants with dependents are determined by schedule according to the average weekly wage and dependency class in Michigan and Ohio. Pennsylvania provides \$3 for one other dependent.

TABLE D-3. New beneficiaries under State programs with dependents' allowances, by types of benefits, January–December 1977

State and sex	Total			Men			Women			Beneficiaries receiving maximum weekly benefit amount		
	Number	Pct receiving dependents' allowances	Pct receiving no dependents' allowances	Number	Pct receiving dependents' allowances	Pct receiving no dependents' allowances	Number	Pct receiving dependents' allowances	Pct receiving no dependents' allowances	Number	Pct receiving dependents' allowances	Pct receiving no dependents' allowances
Alaska	50,403	29.4	70.6	38,909	34.3	65.7	11,494	13.0	87.0	41,561	32.7	67.3
Conn.	165,976	28.5	71.5	96,746	42.3	57.7	69,230	9.2	90.8	44,022	56.2	43.8
D.C.	31,454	11.8	88.2	18,956	9.1	90.9	12,498	15.8	84.2	9,822 <sup>2</sup>	.3	99.7
Ill.	414,564	40.3	59.7	254,271	49.2	50.8	160,293	26.3	73.7	151,958	57.2	42.8
Ind.	153,444	37.3	62.7	98,332	51.2	48.8	55,112	12.5	87.5	93,732	47.9	52.1
Me.	68,765	15.5	84.5	40,715	22.6	77.4	28,050	5.2	94.8	24,535	25.6	76.4
Md.	128,042	11.6	88.4	83,454	7.2	92.8	44,588	19.8	80.2	71,580 <sup>2</sup>	4.6	95.4
Mass.	237,897	23.3	76.7	143,455	35.0	65.0	94,442	5.5	94.5	59,483	47.9	52.1
Mich.	406,302	41.1	58.9	267,520	55.6	44.4	138,782	13.3	86.7	227,011	53.1	46.9
Ohio	316,086	45.9	54.1	223,827	57.8	42.2	92,259	17.0	83.0	99,644	50.1	49.9
Pa.	672,110	42.3	57.7	425,225	56.1	43.9	246,885	18.7	81.3	170,715	71.7	28.3
R.I.	57,373	36.0	64.0	31,870	39.5	60.5	25,503	31.7	68.3	12,713	50.9	49.1
Total <sup>3</sup>	2,702,416	36.6	63.4	1,723,280	47.9	52.1	979,136	16.6	83.4	1,006,776	50.4	49.6

<sup>1</sup> Maximum augmented weekly benefit amount payable for specific number of dependents.

<sup>2</sup> In the District of Columbia, no dependents' allowances are payable to claimants entitled to the basic weekly maximum amount of \$148 effective January 1, 1977. In Maryland, no dependents' allowances are payable to claimants entitled to basic weekly maximum amount of \$89 effective July 1, 1974; data shown represent effects of the old law.

<sup>3</sup> Includes all States that have legal provision for paying dependents' allowances.

TABLE D-4. New beneficiaries entitled to dependents' allowances under State programs, by types of dependent, January–December 1977

State and sex	Number of new beneficiaries	Percent entitled to various allowances				
		For dependent children under age limit			Dependent spouse and no children under age limit	Dependents other than spouse and children under age limit
		Total	With dependent spouse	Without dependent spouse		
Men	807,111	67.6	21.6	46.1	16.3	0
Alaska	13,347	100.0	NA	100.0	NA	NA
Conn.	40,887	81.2	35.2	46.0	18.6	.2
D.C.	1,722	98.7	.1	98.7	.8	.6
Ill.	125,006	82.2	NA	82.2 <sup>a</sup>	17.8	NA
Ind.	50,329	85.9	28.5	57.4	14.1	NA
Maine	9,200	100.0	NA	100.0	NA	NA
Mass.	50,231	100.1	NA	100.1 <sup>a</sup>	NA	NA
Mich.	148,615	81.1	41.9	39.2	18.9	NA
Ohio	129,393	NA	NA	NA	NA	NA
Pa.	238,381	72.0	34.9	37.1	28.0	NA
Women	145,743	84.2	2.0	82.2	5.0	0
Alaska	1,492	100.0	NA	100.0	NA	NA
Conn.	6,354	78.0	8.7	69.3	21.4	.6
D.C.	1,978	99.4	NA	99.4	.2	.4
Ill.	42,162	96.8	NA	96.8 <sup>a</sup>	3.2	NA
Ind.	6,870	95.8	2.4	93.4	4.2	NA
Maine	1,452	100.0	NA	100.0	NA	NA
Mass.	5,154	100.0	NA	100.0 <sup>a</sup>	NA	NA
Mich.	18,398	92.4	4.8	87.6	7.6	NA
Ohio	15,712	NA	NA	NA	NA	NA
Pa.	46,171	93.7	2.7	91.0	6.3	NA
Total <sup>a</sup>	952,854	70.2	18.6	51.6	14.6	0
Alaska	14,839	100.0	NA	100.0	NA	NA
Conn.	47,241	80.8	31.6	49.2	19.0	.3
D.C.	3,700	99.1	0	99.1	.5	.5
Ill.	167,168	85.9	NA	85.9 <sup>a</sup>	14.1	NA
Ind.	57,199	87.1	25.4	61.7	12.9	NA
Maine	10,652	100.0	NA	100.0	NA	NA
Mass.	55,385	100.1	NA	100.1 <sup>a</sup>	NA	NA
Mich.	167,013	82.3	37.8	44.5	17.7	NA
Ohio	145,105	NA	NA	NA	NA	NA
Pa.	284,552	75.5	29.7	45.9	24.5	NA

<sup>1</sup> Not applicable or data not available.

<sup>2</sup> Includes an insignificant percentage of dependents other than spouse and children under age limit.

<sup>3</sup> Includes all States that allow benefits for dependents other than children under statutory age limit.

TABLE D-5. New beneficiaries entitled to dependents allowances under State programs, by number of dependents,<sup>2</sup> January–December 1977

State	Number of new beneficiaries	Percent distribution by number of dependents <sup>3</sup>					Five or more
		Total	One	Two	Three	Four	
Men	825,752	100.0	35.9	42.7	14.9	5.9	.6
Alaska	13,347	100.0	34.2	34.4	31.3	0.0	0.0
Conn.	40,887	100.0	35.5	28.1	20.6	9.9	6.0
D.C.	1,722	100.0	49.3	30.4	20.3	NA	NA
Ill.	125,006	100.0	17.8	82.2	NA	NA	NA
Ind.	50,329	100.0	36.0	28.9	20.5	14.6	NA
Maine	9,200	100.0	34.7	33.8	17.7	0	4.9
Md.	6,043	100.0	53.8	28.5	11.9	5.8	NA
Mass.	50,231	100.0	33.9	34.8	18.6	8.1	4.6
Mich.	148,615	100.0	30.2	25.8	23.5	20.5	NA
Ohio	129,393	100.0	60.4	NA	39.6	NA	NA
Pa.	238,381	100.0	35.5	64.5	NA	NA	NA
R.I.	12,598	100.0	37.6	34.3	16.6	11.4	NA
Women	162,654	100.0	40.2	50.6	6.8	2.3	.2
Alaska	1,492	100.0	51.6	29.5	18.8	NA	.1
Conn.	6,354	100.0	57.1	23.9	11.5	5.0	2.5
D.C.	1,978	100.0	54.1	27.0	18.8	NA	NA
Ill.	42,162	100.0	3.2	96.8	NA	NA	NA
Ind.	6,870	100.0	59.5	26.7	9.9	4.0	NA
Maine	1,452	100.0	51.8	27.7	13.5	5.0	2.0
Md.	8,838	100.0	50.7	31.3	12.9	5.1	NA
Mass.	5,154	100.0	49.9	30.5	13.4	4.8	1.3
Mich.	18,398	100.0	49.1	29.9	12.1	8.8	NA
Ohio	15,712	100.0	79.2	NA	20.8	NA	NA
Pa.	46,171	100.0	47.6	52.4	NA	NA	NA
R.I.	8,073	100.0	40.7	32.9	17.3	9.1	NA
No. receiving max., total <sup>5</sup>	507,511	100.0	31.8	44.7	15.5	7.4	.6
Alaska	13,606	100.0	35.4	34.3	30.2	0	0
Conn.	24,754	100.0	31.5	28.1	22.9	11.2	6.3
D.C. <sup>4</sup>	33	100.0	54.5	30.3	15.2	NA	NA
Ill.	86,891	100.0	14.8	85.2	NA	NA	NA
Ind.	44,924	100.0	37.1	28.7	19.4	14.8	NA
Maine	6,277	100.0	32.9	34.3	18.8	8.8	5.1
Md. <sup>4</sup>	3,258	100.0	51.0	29.0	14.3	5.7	NA
Mass.	28,498	100.0	29.9	36.2	20.1	8.9	4.9
Mich.	120,460	100.0	30.3	26.2	23.4	20.1	NA
Ohio	49,915	100.0	53.2	NA	46.8	NA	NA
Pa.	122,430	100.0	34.0	66.0	NA	NA	NA
R.I.	6,465	100.0	35.1	35.2	17.9	11.8	NA
Total	988,406	100.0	36.6	44.0	13.6	5.3	.6
Alaska	14,839	100.0	35.9	33.9	30.1	0	0
Conn.	47,241	100.0	38.4	27.5	19.4	9.2	5.5
D.C.	3,700	100.0	51.9	28.6	19.5	NA	NA
Ill.	167,168	100.0	14.1	85.9	NA	NA	NA
Ind.	57,199	100.0	38.8	28.7	19.2	13.3	NA
Maine	10,652	100.0	37.0	33.0	17.1	8.4	4.5
Md.	14,881	100.0	51.9	30.2	12.5	5.4	NA
Mass.	55,385	100.0	35.4	34.4	18.1	7.8	4.3
Mich.	167,013	100.0	32.3	26.2	22.2	19.2	NA
Ohio	145,105	100.0	62.5	NA	37.5	NA	NA
Pa.	284,552	100.0	37.5	62.5	NA	NA	NA
R.I.	20,671	100.0	38.8	33.8	16.9	10.5	NA

<sup>1</sup> Not applicable.

<sup>2</sup> Includes all States that have legal provisions for paying dependents' allowances.

<sup>3</sup> The number of dependents is limited to those on whose behalf the weekly benefit amount is increased.

<sup>4</sup> In the District of Columbia, no dependents' allowances are payable to claimants entitled to the basic weekly maximum amount of \$148 effective January 1, 1977. In Maryland, no dependents' allowances are payable to claimants entitled to the basic weekly amount of \$89 effective July 1, 1974. Data shown represent effects of the old law.

<sup>5</sup> Maximum weekly benefit amount payable for specific number of dependents. Excludes District of Columbia and Maryland. See footnote 4.

TABLE D-6. Percentage of new beneficiaries receiving dependents' allowances, by sex, 1968-1977, in the 10 States paying allowances in all 10 years

State	1968	1969	7/1/69- 6/30/70	7/1/70- 6/30/71	7/1/71- 6/30/72	7/1/72- 6/30/73	7/1/73- 6/30/74	1975	1976	1977
Alaska										
Men	40.6	39.7	38.7	37.5	36.0	37.0	37.5	36.0	35.9	34.3
Women	8.0	6.9	7.2	5.8	6.2	6.8	8.0	8.5	8.2	13.0
Conn.										
Men	54.0	53.0	52.6	55.2	52.1	49.7	50.0	45.8	43.8	42.3
Women	6.5	6.6	6.9	7.2	7.3	7.3	8.0	8.6	9.1	9.2
D.C.										
Men	18.2	34.9	21.4	10.8	15.6	16.2	11.4	8.7	8.5	9.1
Women	14.8	17.5	16.6	12.5	13.0	13.7	14.8	14.0	15.3	15.8
Ill.										
Men	61.1	61.0	60.8	59.3	58.5	57.6	55.3	52.2	54.3	49.2
Women	5.5	6.7	6.7	8.5	8.1	7.9	7.4	13.2	22.1	26.3
Ind.										
Men	59.2	60.5	60.7	62.6	57.3	55.6	51.9	58.0	54.0	51.2
Women	6.0	6.4	8.4	8.9	8.8	7.7	9.8	12.9	10.7	12.5
Md.										
Men	5.2	6.9	5.8	5.1	6.0	5.9	5.3	5.8	7.2	7.2
Women	4.3	4.2	4.2	4.4	4.6	4.5	5.0	10.8	18.9	19.8
Mass.										
Men	39.8	38.9	40.6	42.2	42.5	40.0	39.2	37.1	37.3	35.0
Women	4.0	4.0	4.0	4.4	4.4	4.3	4.6	5.0	5.3	5.5
Mich.										
Men	70.4	68.4	67.0	67.5	66.3	62.3	59.1	58.4	56.3	55.6
Women	11.3	12.1	12.9	12.4	10.1	9.1	11.9	12.1	11.5	13.3
Ohio										
Men	67.0	66.6	66.1	65.1	66.8	64.1	61.8	61.1	58.9	57.8
Women	6.4	6.5	6.9	7.5	7.6	7.9	9.5	10.8	15.3	17.0
R.I.										
Men	41.5	36.4	37.9	40.4	39.9	37.5	37.0	37.0	39.9	39.5
Women	2.5	3.1	2.8	2.4	2.8	3.2	28.0	25.1	30.9	31.7

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# Taxing Unemployment Compensation

Wayne Vroman

**T**his report examines the issue of taxing the benefit payments made by State unemployment insurance (UI) programs. Since a part of UI benefits are now taxable, this is a policy issue of considerable importance. The report is restricted primarily to questions of taxation and does not consider in detail questions about the subsequent uses of the tax proceeds. There is no lengthy discussion of the possible use or uses of the tax receipts within the State UI programs to raise benefit levels, to replenish trust fund balances, or to reduce employer payroll tax rates. In other words, the tax receipts are treated as general revenue and not as earmarked revenue to be used for some State UI program purpose.

Historically the compensation benefits paid to unemployed workers have been excluded from taxable income under Federal and State personal income taxes. The tax-exempt status of State UI benefits was not determined by the original Social Security Act of 1935 but rather by an IRS ruling made in 1938.<sup>1</sup> Between 1938 and 1978, the IRS generally treated all government transfer payments as tax exempt. Many persons interested in UI feel strongly that benefits should be tax-free income received as a matter of right. They argue that recipients undergo a major hardship because of their unemployment and should not be further penalized by a tax that is similar to a means test in that it reduces benefit payments.

Over the past decade, the tax-exempt status of UI benefits has received critical attention from both economists and policymakers. Martin Feldstein may be the most prominent and most quoted academic critic of the nontaxability of UI benefits.<sup>2</sup> A major theme in his writings is that substantial labor market distortions are caused by the State UI programs as currently structured. He argues that the economy's overall unemployment rate is increased by two program features: first, a faculty experience rating system, which causes many employers to rely excessively on short-term layoffs in making work-force adjustments; and second, high wage replacement rates, which cause workers to prolong their spells of unemployment. The nontaxable status of UI benefits, of course, raises wage replacement rates for workers who face high marginal personal income tax rates.

In 1978 the Carter administration's tax reform package included a proposal to make a part of State UI

benefits taxable. This proposal was enacted in the Revenue Act of 1978. Starting in 1979, half of State UI benefits became taxable for couples with adjusted gross income (AGI) in excess of \$25,000 and single individuals with AGI above \$20,000. These high cutoff points cause the additional revenue, raised annually because of the legislation, to be very modest, less than \$.5 billion in fiscal year 1980.<sup>3</sup> However, the important precedent set by the legislation could lead to more far-reaching changes in the tax treatment of State UI benefits and of other transfer payments in the near future. There already have been informal suggestions to lower the tax-exempt-income cutoffs for couples and single persons.<sup>4</sup>

This report has five main parts. The first part focuses on the changing structure of family income and how State UI benefits fit into this structure. The second part examines a series of issues that are relevant to an informed discussion of this taxation question. The main arguments for and against taxing State UI benefits are presented in the third and fourth parts, respectively. The last part offers some summary comments.

## UI and the Changing Makeup of Family Income

Family income has three main sources: income from labor market earnings (wages, salaries, and self-employment income), income from property ownership (rent, interest, and dividends), and transfer payments. The latter category includes private transfers (inheritances, transfers from relatives, alimony, and private pensions) and government transfers. Government transfers include payments from social insurance programs—Old Age, Survivors, Disability and Health Insurance (OASDHI), State UI, and workers' compensation, for example—and from means-tested programs, such as Aid to Families with Dependent Children (AFDC), Supplemental Security Income (SSI), and food stamps. Generally, income from earnings, property income, and

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private transfers are taxable under the Federal and State personal income taxes, whereas government transfer payments are tax-exempt. Benefits from the social insurance programs are not means-tested but are based on previous labor market attachment and are received by eligible individuals as a matter of right. This situation raises the possibility of a high-income family receiving tax-free social insurance payments whose value to the family is enhanced considerably by their tax-exempt status.

The composition of family income has undergone significant changes since the mid-1930's, when the State UI program was created. Three changes are especially important. First, many more families currently have two working adults. About half of all adult women now work sometime during each year, and many work year-round at full-time jobs. Thus, the fraction of families with two earners has grown considerably in 40 years. Second, government transfer payments have become a much more important part of aggregate family income. Both the social insurance and the means-tested transfer programs have grown enormously since the 1930's. For example, government transfers as a portion of aggregate personal income increased from 4.5 percent in 1933 to 13.1 percent in 1979. Third, the importance of income taxes in the economy has also grown markedly. Most families are now subject to income tax payments, whereas only a small fraction paid income taxes in the 1930's. For the entire economy, personal taxes as a proportion of personal income grew from 3 percent in 1933 to 15.6 percent in 1979.<sup>6</sup>

The conjunction of these three trends causes the impact of unemployment on family income to be a more complex issue now than it was in the 1930's. Previously the family would have had one earner, would have had little access to other transfer payments, and would not have been subject to income taxation. The loss of earnings attributable to unemployment in such a situation meant a major drop in family income. If it were not for UI benefits, family income would essentially fall to zero, and the family would look to personal savings, transfers from other relatives, private charities, or locally administered general assistance to meet their consumption needs.

Now the occurrence of a spell of unemployment can have markedly different impacts on family income. Although family income will decline, the reduction will generally not be to zero or even to poverty status. The new, lower level of family income depends on the number of adult earners in the family, the presence of property income, the family's marginal income tax bracket, and access to other transfers besides the State UI benefits. Thus, for two workers who earn identical weekly wages and who experience equal spells of involuntary unemployment, the impact on family income will not necessarily be the same. UI pays benefits to individual workers, but the impact of unemployment

on family well-being depends on all four factors cited above.

## **The Income and Tax Status of UI Beneficiaries**

On the average, State UI beneficiaries are not members of the lowest income groups in the U.S. population. This fact has been confirmed in several recent analyses that have compared the income distribution of UI recipient families with the overall distribution of annual family income. There are three main explanations for this situation. First, to be monetarily eligible, a person must demonstrate recent job attachment. This implies the person has wage and salary income, and the poorest families in our society often have no member with a labor force attachment. Second, unemployment spells are typically quite short, so that the recipient will usually have earnings both before and after the unemployment spell. Third, while the unemployed person is receiving UI benefits, the family may be receiving income from property ownership and/or the labor market earnings of other members.

Information on the family income of UI beneficiaries comes primarily from household surveys conducted by the U.S. Census Bureau and not from State UI program data. The focus of UI program data is almost exclusively on the labor market experiences of individual workers. Benefits are received by unemployed workers as a matter of right after determinations have been made regarding their coverage, monetary eligibility, and reason for unemployment. Information about other income sources and/or the earnings of other family members is not necessary to make benefit determinations.<sup>6</sup> Because recipients usually are members of households and have other income sources, one needs to know the level of family income and the family's marginal income tax rate to assess accurately the value of UI benefits to the person and the person's household.

The Census Bureau surveys measure annual household income using detailed questions about the major income sources—labor market earnings, property income, and transfer payments. Regarding UI benefits, certain limitations in the household surveys should be noted. Two limitations are particularly important. First, the reporting of UI benefits in household surveys is not very accurate. When the reported survey totals are compared with UI program data on benefit payments, the former are somewhere between .5 and .8 of the latter. Because benefits are substantially underreported in the household surveys, questions can be raised as to the income characteristics of those who do not report benefits. There are also inconsistencies in the reporting of UI benefits and of unemployment in the surveys. Each year a sizable proportion of those who report receipt of UI benefit also report that they experienced no unemployment.<sup>7</sup> This too raises questions about the

overall accuracy of the income data for some reported UI recipients.

The second limitation arises from the annual time period the surveys use to measure household income. To assess accurately the economic hardship caused by unemployment and the effects of UI benefits in mitigating that hardship, one needs measures of after-tax family income for three distinct periods: before unemployment, while UI benefits are being received, and after UI benefits have been exhausted. Income surveys, however, combine all these periods by asking annual income questions. Also, they do not ask questions about tax payments or questions that distinguish weekly UI benefit amounts from the duration of UI benefits. Thus they cannot accurately portray net income changes within the year but only pretax income for the year as a whole.

Despite these limitations, information from the household surveys and associated microsimulation tax models are most useful for assessing the income and tax position of UI beneficiary households vis-à-vis other households in the economy. Among the most important of the tax models, five should be noted: the MERGE files developed at The Brookings Institution; the Personal Individual Income Tax Model (PITM) at the U.S. Treasury Department, the microtax model at the Congressional Budget Office; the TRIM model at the Urban Institute, and the MATH model at Mathematica, Inc.

The income profiles of UI recipients that these models portray show a remarkably consistent pattern. First, although the average annual income of UI beneficiary households is somewhat lower than that of other households, there is not an unusually large concentration of beneficiary households at the very bottom of the income distribution. Second, as in other households, the annual income of UI recipients has a very wide distribution, and recipients are present in all except the very highest income classes. Third, a measurable number of UI recipients have fairly high annual incomes, incomes that exceed the national average for all households. Making UI benefits fully taxable would have its largest impact on these households.

The three findings described above are vividly illustrated in a recent analysis conducted by Ehrenberg, Hutchens, and Smith.<sup>8</sup> Because theirs is the most comprehensive recent analysis of this income distribution question, some of their tabular output is displayed in Table 1. In this table, families are arranged according to 1970 total family income. The estimates of UI benefits and other government transfers that enter family income have been corrected for underreporting. Overall, the median income of UI recipient families—\$8,439—is only 2 percent lower than the median income for all families, \$8,575. On balance, UI benefits are progressive; that is, they are a larger proportion of total income for the lowest income group (under

TABLE 1. Distribution of family money income and UI benefits: 1970

Income class	Percent of total families	Percent of total income	Percent of total UI recipients	Percent of total UI benefits
Under \$5000	28.5	7.1	22.7	25.5
\$5000–10,000	30.1	22.0	40.0	38.2
10,000–15,000	21.7	25.6	26.1	23.8
15,000–20,000	10.6	17.8	7.8	7.5
20,000–25,000	4.4	9.4	2.1	2.9
25,000 and above	4.7	18.1	1.3	2.1
Number of families (000's)	68,913	—	8,217	—
Median income	\$8,575 <sup>1</sup>	—	\$8,439 <sup>1</sup>	—

<sup>1</sup> The median was obtained by linear interpolation of family income data where families were classified into narrower income classes than the classes shown in this table.

Source: Ronald Ehrenberg, Robert Hutchens, and Robert Smith, "The Distribution of Unemployment Insurance Benefits and Costs," U.S. Dept. of Labor, 1978, p. 24.

\$3,000) and then decline in importance as one moves up the income scale.<sup>9</sup> Very few benefits went to families in the highest income bracket (\$25,000 and above). Of most importance, however, 36.3 percent of UI benefits were received by families with 1970 incomes above \$10,000. Ehrenberg, Hutchens, and Smith examined the sensitivity of these findings by measuring family income in alternative ways and making alternative assumptions in assigning unreported UI benefits.<sup>10</sup> The overall distribution of UI benefits as depicted in Table 1 was repeated in all of their alternative analyses. The bulk of UI benefits are received by nonpoor families.

Who are the UI recipients with moderate and high annual incomes? Although they are undoubtedly a heterogeneous group, they have one obvious characteristic: varied earnings flows within the year. This characteristic is present for persons who experience short-term layoffs, workers in seasonal industries and occupations, and workers with seasonal and irregular patterns of labor force participation. When their varied earnings flows are combined with the earnings of other family members and property income, a frequent result is high annual income for the household.

The fact of high annual income means that tax-exempt UI benefits (more generally, tax-exempt government transfer payments) would be particularly valuable to such households. This can be illustrated with examples of UI replacement rates for workers in different income situations. Table 2 presents hypothetical information for households in three different situations: Example 1, a low-wage worker from a low-income family; Example 2, a low-wage worker from a high-income family; and Example 3, a high-wage worker from a high-income family. Examples 1 and 2 are alike in that the worker's weekly wage is \$100. Examples 2 and 3 are alike in that the marginal tax rate on family income is 40 percent. Example 2 is of particular inter-

TABLE 2. Illustrative examples of income losses and UI benefits <sup>1</sup>

	Example 1: low-wage worker, low-income family	Example 2: low-wage worker, high-income family	Example 3: high-wage worker, high-income family
A. Income loss due to unemployment			
1. Weekly family income before unemployment	100	500	500
2. Marginal income tax bracket	.00	.40	.40
3. Weekly wage of the unemployed worker	100	100	400
4. Loss of net weekly income due to unemployment	100	60	240
B. Tax-exempt unemployment insurance benefits <sup>2</sup>			
5. Weekly gross benefits	50	50	100
6. Weekly net benefits	50	50	100
7. Income loss replacement rate (line 6 ÷ line 4)	.50	.83	.42
C. Taxable UI benefits <sup>3</sup>			
8. Weekly gross benefits	50	50	100
9. Weekly net benefits	50	30	60
10. Income loss replacement rate (line 9 ÷ line 4)	.50	.50	.25

<sup>1</sup> These are illustrative examples developed for this report. All income and benefit amounts are measured as dollars per week.

<sup>2</sup> Benefits are based on a UI program that pays half of a worker's average weekly wage (line 3) up to a maximum of \$100. Benefits are not taxable.

<sup>3</sup> Benefits are based on a hypothetical UI program that pays half of a worker's average weekly wage (line 3) up to a maximum of \$100 but subjects all benefits to income taxation.

est, because it represents a family situation that is now much more common than it was in the 1930's. When unemployment occurs, the reductions in the families' weekly spendable incomes are \$100, \$60 and \$240 for Examples 1, 2, and 3, respectively.

Lines 5–7 of Table 2 show the payment of UI when the benefits are completely tax-free. Weekly benefits are assumed to be 50 percent of average weekly wages, subject to a maximum of \$100. Since benefits are not taxable, the gross benefits paid by the program are the same as the net benefits received by the worker (lines 5 and 6, respectively). The replacement rates in line 6 vary considerably. In Example 1 the program actually replaces half of the weekly income loss. Much higher replacement (.83) is experienced in Example 2, because wages are taxable but benefits are tax-free. Income replacement in Example 3 is .42, a result of two opposed tendencies. The weekly benefit maximum lowers the replacement rate, and the nontaxability of benefits raises it. In this case the impact of the weekly maximum predominates, and the replacement rate is less than .50.

Lines 8–10 show the effect that benefit payments would have if UI benefits were fully taxable. For high-income families, Examples 2 and 3, net benefits in line 9 are now considerably lower, \$30 and \$60, respectively. Because benefits are taxable, the line 10 replacement rates are also lower. The low-wage/high-income person now experiences a replacement rate of .50, and the high-wage/high-income person's rate falls to .25.

Four points about the Table 2 examples should be emphasized. First, taxing benefits can either reduce replacement rates (Examples 2 and 3) or leave them unchanged (Example 1). Second, replacement rate variation will remain even after benefits are made taxable.

Program features such as weighted benefit schedules, benefit maxima, and dependents' benefits will continue to affect replacement rates even when benefits are fully taxable. Third, making benefits taxable successfully addresses the perceived problem of low-wage/high-income workers who experience very high net income replacement when benefits are tax-exempt. Taxing benefits in Example 2 causes the net income replacement rate to fall from .83 to .50. Fourth, taxing the benefits of high-wage/high-income workers increases their net income reductions due to unemployment. The extent of net income replacement falls from .42 to .25 when benefits are taxed. One could argue that UI benefits should replace half of the net income loss due to unemployment. This could be accomplished by simultaneously removing weekly benefit maxima and making benefits fully taxable. This proposal has been made in another report.<sup>11</sup>

Beginning in 1979, part of State UI benefits were included in the taxable income of persons and couples with annual income above certain thresholds. The income cutoffs are \$20,000 for single persons and \$25,000 for couples filing joint returns. To avoid "notch" problems, taxable income is defined in a manner that gradually phases in taxes on UI benefits added to incomes near these income thresholds. The taxable part of UI benefits is determined by subtracting the threshold amount from the sum of adjusted gross income (AGI)—before UI is included, but counting government disability benefit payments—and UI benefits. Half of the difference is compared with the UI benefit amount, and the taxable amount is the smaller of the two. As an example, consider single persons with \$2,000 of benefits and different levels of AGI. For AGI levels up to \$18,000, none of the UI benefits

are taxable. The portion of UI that is taxable then rises from 0 percent to 100 percent as AGI rises from \$18,000 to \$20,000. All benefits are taxable at AGI levels in excess of \$20,000.

The increased revenues arising from the current law and from potential alternative tax treatments of UI benefits are quite modest. This point is cogently made in two separate analyses conducted for fiscal year 1980. A tax analysis by the Congressional Budget Office estimates the 1980 revenue effects of the current law to be \$448 million on an estimated UI benefit total of \$12.6 billion. In this analysis a reduction of the income thresholds to \$10,000 and \$15,000 for single and joint filers, respectively, would raise an additional \$558 million or almost \$1 billion altogether. This higher amount represents only 0.4 percent of Federal personal income tax revenue.

A second analysis is found in the fiscal year 1981 budget documents. Special Analysis G estimates that the fiscal year 1980 "tax expenditure" associated with the current tax treatment of UI benefits is \$2.5 billion.<sup>12</sup> Coupled with a revenue estimate of \$.25 billion raised by the current law (based on an estimated total benefit outlay of \$14.1 billion), this suggests that the total revenue potential from taxing UI benefits in fiscal year 1980 is less than \$3 billion.

To conclude this section, five summary observations seem appropriate. First, the average annual income of UI recipients is somewhat less than that of other families. Second, more important than its average is the fact that the annual income of UI recipients is widely dispersed in the overall income distribution. Many UI recipients are members of families with fairly high annual incomes. Third, full taxation of UI benefits would raise only modest amounts of revenue, somewhat less than \$3 billion, in fiscal year 1980. Fourth, part or all of UI benefits currently are taxable for tax filing units with high annual incomes. Because of the high income thresholds currently in effect, only 10 to 15 percent of the potential revenue from full taxation is now being realized. Fifth, the problem of high replacement rates arising from tax-free benefits paid to workers in high tax brackets has been sharply reduced by the current tax treatment of UI benefits.<sup>13</sup>

### **Arguments for Taxing UI Benefits**

Two main arguments for taxing State UI benefits exist: first, to increase the fairness (or equity) of the tax system; second, to reduce labor market distortions caused by the tax-exempt status of the benefits. Two other reasons for taxing benefits are, first, to improve the targeting of benefits to those in need and, second,

to increase the level of Federal tax revenues. Each argument is reviewed below.

#### **Increasing the fairness of the tax system**

Advocates of income tax reform argue that the current tax structure in the U.S. has too many loopholes or tax expenditures that afford special tax treatment to some citizens at the expense of others. The result is a tax system with many horizontal and vertical inequities. Families with equal incomes do not have identical income tax obligations (horizontal inequities), and families with higher incomes often pay less in taxes than others with lower incomes (vertical inequities). To remedy this situation, reformers argue, a comprehensive income measure should be the basis for personal income taxes. A dollar from government transfer payments is the same as a dollar from labor market earnings or a dollar from property ownership. All should be included in the comprehensive income measure and equally subject to income taxation.<sup>14</sup>

There is ample documentation of the loopholes in Federal personal and corporate income taxation as it currently is structured. Certain forms of income are partially or totally excluded from the definition of taxable income (60 percent of long-term capital gains, all government transfers except the taxable part of State UI benefits, the first \$100 of dividend income). Depletion allowances on certain natural resources and deductions for such items as home mortgage interest payments and charitable contributions confer tax advantages to some members of society and not to others. A suggestion of some tax reformers is to define all income sources as taxable and eliminate all exemptions and deductions from this comprehensive measure of income.

Among the various government transfer payment programs, the most severe equity problems are posed by the social insurance transfers. Because these transfers are not means-tested, they may be received by persons who are members of high-income households. As the examples from Table 2 illustrate, the value of State UI benefits is enhanced greatly when they are tax-exempt and received by members of high-income households. The \$50 of tax-free benefits replaced 83 percent of after-tax wages for the high-income person (Example 2) but only half of after-tax wages for the low-income person (Example 1). Because they are not means-tested and hence can be received by high-income households, some tax reformers place a higher priority on taxing the social insurance transfers than on taxing other government transfers.<sup>15</sup>

Interest in this issue was sparked recently by a recommendation that half of OASDHI (social security) cash benefits be made taxable. The report of the 1979 Advisory Council on Social Security contains this recommendation.<sup>16</sup> Since social security is by far the

largest government transfer program, taxing these benefits would raise substantial revenues. For fiscal year 1980 the Treasury Department estimates the tax expenditure associated with the program's \$115.5 billion of cash benefits to be \$8.6 billion.<sup>17</sup>

Given the long-term growth in government transfer payments as a proportion of personal income, the Social Security Advisory Council's tax recommendation, and the 1980 legislative interest in lowering the income thresholds for taxing UI benefits, it seems unlikely that interest in this tax issue will diminish with the passage of time.

### **Reduction of labor market distortions**

For unemployed workers with low weekly wages but high marginal income tax rates, UI benefits may represent a substantial fraction of after-tax weekly wages. Example 2 in Table 2 vividly illustrates this fact. The high replacement rate represented by tax-free benefits (more than 70 percent of after-tax wages) could induce some workers to prolong their spells of unemployment without enhancing the efficiency of their job search. It is alleged, for example, that working wives are often in this situation. If weekly UI benefits were made fully taxable, replacement rates would be lowered substantially, and this would reduce labor market distortions, specifically the prolongation of unemployment duration.

There have been several studies of the effects of UI benefits on unemployment duration. One of the best and most readable reports was written by Stephen Marston.<sup>18</sup> His paper noted five possible approaches to the question, reviewed earlier studies using each approach, and discussed their methodological shortcomings. Marston then developed an estimate of the impact of program benefits on unemployment duration for the year 1969. He estimated that UI benefits increased unemployment duration by 16 to 31 percent. Marston was careful to note the possible margin of error in his estimates and the lack of an ideal data base for making empirical estimates. Data on duration are incomplete, and especially serious is the lack of duration data among noninsured unemployed workers.

Because the volume of research on the duration question is so extensive, there have been several reports that summarize the findings of other researchers. Besides the brief survey in Marston's report, there are also surveys by Fields, Gustman, Hamermesh, Topel and Welch, and Welch.<sup>19</sup> The predominant conclusion of research in this area is that higher UI benefits cause increased duration of unemployment among recipients. After reviewing 12 studies, Hamermesh suggests the marginal effect of higher UI benefits can be summarized with a coefficient of 5.0 in a duration equation. Thus, if benefits increase and the net replacement rate increases from .5 to .6, for example, annual employment duration among recipients will increase by roughly

half a week. Individual studies, however, reach widely differing conclusions as to the size of this effect.

One fact that has emerged from the recent research is the need to focus on net replacement rates. What motivates unemployed workers to prolong their spells is the size of weekly UI benefits relative to the weekly net income loss caused by unemployment. The latter can be considerably different from the average weekly wage. Four factors, besides the weekly wage, that affect the size of the weekly net income loss are reduced taxes, reduced work-related expenses, fringe benefit losses, and growth in money wage rates associated with inflation and productivity change. All must be estimated before one can assess the net replacement rate. Since many of the earlier studies have not measured net replacement rates in such a way, this raises questions as to the validity of their findings regarding the effects of benefits on unemployment duration.<sup>20</sup>

### **Improving the targeting of benefits**

Like other social insurance programs, State UI has both welfare objectives and insurance objectives.<sup>21</sup> The existence of maximum limits on weekly benefits in all States, as well as the existence of weighted benefit schedules and dependents' allowances in selected States, attests to the welfare objectives of the program. Making State UI benefits taxable would improve the targeting of benefits to those in need. Pretax benefits would be related to previous earnings, but after-tax benefits would also be affected by the family's income level and marginal income tax rate. This argument for taxing benefits loses force if reforms of State UI are designed to enhance the insurance objectives of the program and to downplay its welfare objectives.

### **Increasing Federal tax revenues**

Broadening the tax base of Federal and State personal income taxes would increase tax revenues unless there were an offsetting reduction in marginal income tax rates. The potential revenue associated with taxing State UI benefits is not large. For fiscal year 1980 the current law will collect between \$.25 and \$.45 billion. Making UI benefits fully taxable would yield only an additional \$2.5 billion.

If the current tax treatment of UI benefits proves to be the first move toward full taxation of all government transfers, then the potential new revenues become much larger. As noted earlier, full taxation of OASDHI benefits would yield \$8.6 billion in fiscal year 1980. If all government transfers (including the untaxed part of UI benefits) and all veterans' retirement and disability benefits were to be made fully taxable, these revenues would total \$14.5 billion.<sup>22</sup> Viewing all these government transfers and veterans' benefits as tax expenditures, the untaxed part of UI benefits represents about

20 percent of the total for this entire class of tax expenditures. The current tax treatment of UI benefits, which raises \$.25 to \$.45 billion, captures only 2 to 3 percent of this \$14.5 billion total.

### **Arguments Against Taxing UI Benefits**

There are three major arguments against taxing UI benefits. The first stresses the social insurance objectives and framework of the program as it was originally designed. The second stresses the added hardships caused by taxing the UI benefit payments made to families already experiencing an income reduction due to unemployment. The third states that taxing benefits would shift the current mix of taxes on labor and capital to the disadvantage of labor's after-tax income share. Two additional arguments of lesser importance concern (1) handling the administrative problems and questions associated with taxing benefits and (2) retaining fully the automatic stabilizing properties of the program.

#### **Maintaining the social insurance character of the program**

Layoffs from jobs are largely uncontrollable events for individual workers, but they are events that occur with predictable regularity in the overall economy and its various local labor markets. UI is a program that pools risks and indemnifies workers who experience involuntary unemployment. It provides partial compensation for earnings loss as a matter of right to eligible individuals.<sup>23</sup> UI is paid to eligible workers regardless of their income from other sources and regardless of the income of other family members. The framers of the Social Security Act deliberately structured the program to pay benefits as a matter of right and free from means tests, which condition benefits on the recipient's income and/or wealth position. Simply stated, the program provides insurance against earnings losses due to unemployment.

Taxing benefits does introduce an aspect of means testing into UI. The exact nature of this means test should be noted. It does not enter into either the basic determination of benefit eligibility or the determination of the gross weekly benefit. Each of these depends primarily on the worker's base-period covered earnings. Where the means test enters is in determining the proportion of gross weekly benefits that accrues to the unemployed worker. The level of family income largely determines the ratio of net to gross weekly benefits. Taxing benefits, then, introduces a means test in the restricted sense of causing the ratio of net to gross weekly benefits to decline as one moves to higher income levels. When benefits are taxable, however, it will still be true that an increase in base-period covered earnings will in-

crease the worker's likelihood of benefit eligibility, gross weekly benefits, and net weekly benefits.

Proponents of exempting UI benefits from taxation also argue that it avoids a problem of double taxation. In periods of normal business conditions, the program is financed mainly by an employer payroll tax levied on the taxable payroll of covered workers.<sup>24</sup> Employer contributions are made into a trust fund, which is the source of payments to unemployed workers. Although the payroll tax is nominally paid by employers, most students of public finance argue that employers shift the tax burden through a combination of price increases and reductions in the money wage increases of workers.<sup>25</sup> Thus the financing of State UI causes the real wage of workers—the money wage rate divided by the price level—to be lower by the amount of the employer tax. In the aggregate, the program is an insurance arrangement for covered workers. The real wage reduction incurred by all covered workers acts like an insurance premium that pays benefits to those who experience involuntary unemployment.

From this perspective it can be argued that subjecting UI benefits to income taxation involves a form of double taxation. The first tax is the payroll tax, a mandatory levy that is shifted and effectively reduces the worker's real wage. The second tax is the income tax on the UI benefits. Beneficiaries are, in effect, taxed twice when benefits are treated as taxable income.<sup>26</sup>

Reduced to its essentials, this argument asserts that taxing benefits introduces the twin evils of means testing and double taxation. Both are avoided when UI benefits are tax-exempt.

#### **Cushioning the adverse effect of unemployment on family well-being**

Many proponents of tax-exempt UI benefits advance a direct humanitarian argument. Involuntary unemployment causes a drop in earnings, and UI benefits are intended to offset a substantial part of the attendant income reduction. Benefits are related to previous earnings and are received as a matter of right, and any income the family may receive from other sources is irrelevant to the receipt of UI benefits. Involuntary unemployment almost always causes family income to fall. The level of income is less important than the change in income, because the change will force a change in the family's spending, lifestyle, and sense of well-being. The payment of UI benefits to the worker cushions the reduction in family income and helps to maintain living standards. To subject these benefits to income taxation would add a second burden to the family already harmed by the loss of earnings due to the unemployment.

Taxing UI benefits will certainly increase the net income loss experienced by many families. For each dollar of lost earnings, the spendable income reduction

caused by unemployment will be greatest in those situations where the replacement rate is the lowest. Thus, in Table 2, unemployment's greatest impact is on the high-wage/high-income worker (Example 3) and its smallest impact on the low-wage/high-income worker (Example 2). It was also shown that taxing benefits either lowers net benefits (and replacement rates) or leaves them unchanged. Taxing benefits increases the income losses of high-income workers (Examples 2 and 3) while leaving the low-wage/low-income worker unaffected. The major adverse effect of taxation is experienced by the high-wage/high-income worker, whose replacement rate falls from .42 to .25.

Table 3 explores more fully the issue of these added burdens by providing three examples of workers in high-income situations. The table was prepared using seven important assumptions. (1) In each example, the income and tax data refer to a married couple filing a joint return. (2) One person experiences unemployment with duration of 10 to 30 weeks. Since that worker is in the labor force continuously, weeks of employment plus weeks of unemployment add up to 52. (3) Unemployment is the only reason for uncertainty about the family's annual income and tax liability. Thus, when the worker does not experience unemployment, the family correctly anticipates its annual taxes and withholds the appropriate amount. Taxes on wage income are withheld on a weekly basis, whereas taxes on income from other sources are paid on a quarterly basis. (4) Withholding rates are not adjusted when there is

an occurrence of unemployment. (5) The couple takes a standard deduction, has five exemptions, and pays taxes according to the 1979 rate schedule. (6) UI benefits equal half of the worker's weekly wage subject to a weekly maximum of \$200. Benefits are paid for the entire spell of unemployment. (7) Annual tax obligations are computed two ways: with UI benefits fully tax-exempt and with UI benefits fully taxable. No taxes are withheld from UI benefits when they are fully taxable.

Unemployment reduces both the family's income and the family's income tax liability. Columns 1 to 5 in each example of Table 3 display the worker's wages, UI benefits, and family income under four different unemployment assumptions. Weekly withholding rates for wage income and total withheld taxes appear in Columns 6 and 7. The family's annual tax liabilities appear in columns 8 and 9 under the two assumptions about taxing UI benefits. Liabilities are higher in column 9 when the benefits are fully taxable.

Example 1 is the typical family of five with just one major income source, the earnings of the high-wage worker. The family in Example 2 is in the same situation except that there is an additional \$10,000 of income from other sources (earnings of other family members and/or property income). In both Examples 1 and 2, as the duration of unemployment increases, the taxes withheld (column 7) decline less than the annual tax liability (columns 8 and 9). This occurs because of the progressive marginal rate structure of the Federal per-

TABLE 3. Simulated income and tax situations of unemployed worker families <sup>1</sup>

Weeks of employment (1)	Annual wages (2)	*Weeks of unemployment (3)	UI benefits (4)	Total family income <sup>2</sup> (5)	Weekly withholding rate on wages <sup>3</sup> (6)	Withheld taxes <sup>3</sup> (7)	Total taxes: UI benefits not taxable <sup>4</sup> (8)	Total taxes: UI benefits taxable <sup>4</sup> (9)
Example 1: High-wage worker with no other income								
52	31,200	0	0	31,200	96.33	5009	5009	5009
42	25,200	10	2000	27,200	96.33	4046	3267	3826
32	19,200	20	4000	23,200	96.33	3083	1882	2787
22	13,200	30	6000	19,200	96.33	2119	734	1882
Example 2: High-wage worker with \$10,000 of other income								
52	31,200	0	0	41,200	125.13	8592	8592	8592
42	25,200	10	2000	37,200	125.13	7341	6303	7043
32	19,200	20	4000	33,200	125.13	6089	4386	5649
22	13,200	30	6000	29,200	125.13	4838	2787	4386
Example 3: Low-wage worker with \$30,000 of other income								
52	5,200	0	0	35,200	17.90	6303	6303	6303
42	4,200	10	500	34,700	17.90	6123	5969	6129
32	3,200	20	1000	34,200	17.90	5944	5649	5969
22	2,200	30	1500	33,700	17.90	5765	5329	5809

<sup>1</sup> Illustrative examples were derived for purposes of this report.

<sup>2</sup> Income includes the wages of the unemployed worker (column 2), UI benefits (column 4), and other income (\$0 in Example 1, \$10,000 in Example 2, and \$30,000 in Example 3).

<sup>3</sup> The weekly withholding rate in column 6 refers to taxes withheld from the wages of the unemployed worker. Total withholding in column 7 includes weekly withholding from other wages and quarterly declarations on property income. There is no withholding of taxes from UI benefits.

<sup>4</sup> In column 8, UI benefits are fully tax exempt, but in column 9 they are fully taxable regardless of total income.

sonal income tax. In other words, annual tax liabilities decline more than proportionately, and withheld taxes decline proportionately when unemployment causes family income to fall. It may be surprising, but taxes withheld from wages and property exceed the annual tax liability in Examples 1 and 2 when UI benefits are fully taxable.

Example 3 illustrates the situation of a low-wage/high-income worker. For this person's family, withheld taxes do not quite equal the annual tax liability when UI benefits are fully taxable. Note, however, that the withheld amounts (column 7) do not depart sharply from the annual tax obligations (column 9).

The main conclusion to be drawn from these examples is this: if withholding rates do not change because of unemployment, the taxes withheld from wages and property income will by themselves be sufficient to cover the annual income tax obligation when UI benefits are fully taxable. This result obtains because the income tax's progressive marginal rate structure causes tax obligations to fall faster than withheld taxes when there is unemployment.

This finding has obvious implications for the argument about the added burden caused by taxing UI benefits. From the standpoint of annual tax liabilities, there is no need to withhold taxes from UI benefits at the time they are paid to the unemployed worker. Unemployment causes the annual tax liability to fall by so much that taxes withheld from other income sources cover the annual obligation.

Taking UI benefits still puts the affected families in a worse position than they would be if benefits were not taxable. The burden will be felt in two possible ways. First, withholding rates on other income cannot be reduced by as much during the unemployment spell or after the unemployed person returns to work. Second, year-end tax refunds will be smaller if withholding rates are not adjusted. It seems clear from these examples that the added tax burden does not have to be imposed directly by withholding taxes from UI benefit payments at the time the worker is actually experiencing unemployment.

### **Maintaining a fair mix of taxes on labor and capital**

This argument focuses on the fairness of the tax burdens imposed by Federal (corporate and personal) income taxes on income from labor and from capital. Many would agree about the desirability of broadening the base for Federal and State income taxes but would disagree over the strategy for achieving this objective. To subject social insurance transfers (e.g., UI benefits) to income taxation would change the current mix of taxes levied on labor and capital. Since the benefits are linked to prior earnings, making them taxable would shift the aggregate tax burden more toward labor income. Unless some loopholes in taxing income from

capital (e.g., capital gains) were closed at the same time, labor representatives in the political system might well oppose taxation of State UI benefits. This line of reasoning could be applied with equal force against proposals to make OASDHI and workers' compensation benefits taxable. In fact, Bert Seidman of the AFL-CIO has made the argument in reference to benefit payments from both OASDHI and State UI.<sup>27</sup>

Clearly, there are several large loopholes or tax expenditures in the Federal corporate and personal income tax laws as they currently are structured. A recent analysis by the Congressional Budget Office estimates total tax expenditures in fiscal year 1981 to be \$206.3 billion.<sup>28</sup> Much of this total results from favorable tax treatment of corporations: for example, the investment tax credit and individuals with property income (e.g., long-term capital gains). In fact, this analysis points out 12 separate tax expenditures that account for at least \$5 billion of Federal tax revenue losses each. The 12 account for a tax expenditure total of \$141.6 billion. Of these, 10 could be associated more or less exclusively with income from labor or with property (capital) income. The tax expenditures for income from capital were \$78.5 billion, compared to \$38.7 for labor income.<sup>29</sup>

In the aggregate economy, income from labor is roughly three times the size of income from capital. It appears from the comparative magnitudes of the largest tax expenditures that the current tax loopholes are considerably more favorable to income from capital. Given the size and mix of the largest tax expenditures, the fiscal year 1981 tax expenditure caused by the current tax treatment of UI benefits (\$3.1 billion) does seem modest in size.<sup>30</sup> In this context the argument about taxing UI benefits involves the question of the proper incremental tax reform strategy. If one advocates pursuing each possible tax reform solely on its own merits, then one can treat full taxation of UI benefits as an issue by itself. If one advocates a balanced strategy, then one might recommend full taxation of UI benefits as part of a package that simultaneously closed one or more loopholes in the taxation income from capital. The choice of strategy is one of political economy and of whose ox is being gored. Some labor representatives in the political process can be expected to oppose single-issue reform initiatives when a tax expenditure favorable to labor is at stake.

### **Some administrative questions**

Taxing UI benefits would raise a number of administrative questions, including these two: How would the taxes be collected? What would happen to the tax receipts? Opponents of taxing UI benefits note that such questions do not arise when benefits are tax-exempt. Since a part of UI benefits are already taxable, the two questions are examined briefly here.

Tax collections could take place either on a weekly withholding basis or at the end of the tax year (sometime between January 1 and April 15 of the year following the receipt of benefits). There are problems associated with each collection method. To implement weekly withholding, the employment security agency should have information on the number of dependents, income from other sources, and the duration of unemployment in order to withhold at the appropriate rate. Since unemployment duration cannot be forecast with certainty, there are bound to be errors in the withholding rates. Weekly withholding also means that taxes further reduce the family's spendable income at the very time when income is already being reduced by unemployment.

Currently, payments on the taxable part of UI benefits take place when families file their annual tax returns. Given the rather high income cutoffs that define taxable UI benefits, this is the most sensible method of collection. The family does not know its annual income in the middle of the year, particularly when one or more members experience unemployment.

One disadvantage of the current collection method is the potential burden it places on families where there is unemployment in both the reference year and the next year, when annual tax payments are due. If reference year unemployment were to be followed by excessive reductions in weekly withholding rates, then end-of-year tax obligations would fall due under most inconvenient circumstances. From the Table 3 examples, it seems that the problem would not arise if withholding rates were not adjusted downward. In fact, many taxpayers would receive refunds due to overwithholding from wages even when UI benefits are fully taxable. A second disadvantage of end-of-year payments is the likelihood of greater noncompliance by taxpayers. There could be reluctance to declare UI benefits as there now is reluctance to declare long-term capital gains, dividends, and interest income. Compliance problems would undoubtedly be smaller if taxes were withheld from UI benefits.

As long as the current tax treatment of UI benefits is maintained, having end-of-year payments is the sensible administrative arrangement. Not enough revenue is collected to make weekly withholding an attractive alternative. If UI benefits were fully taxable, however, use of weekly withholding might then be more reasonable. To avoid excessive administrative costs under full taxability, it would seem preferable to withhold at a flat rate, perhaps 10 percent of gross weekly benefits. This withholding rate could be reduced to zero for workers who estimate their annual tax obligation to be zero. Questions of overwithholding and underwithholding would then be settled when the annual tax forms are submitted to IRS.

The current tax treatment of UI benefits illustrates that the principle of taxability can be established while

in fact leaving most of the benefits untaxed. Only 10 to 15 percent of the full revenue potential from taxing UI benefits is now being realized. These revenues go exclusively to IRS. If a larger proportion of UI benefits were taxed, the groups with direct interests in the State UI program would undoubtedly raise questions about possible program-related uses of the revenues. Several alternative uses could be suggested. The employment security agencies in the various States might want the tax proceeds to be earmarked for the UI trust funds. This would seem particularly likely in States with trust fund deficits and outstanding loans from the Federal Government. Employer representatives might argue that net benefits should be the basis for their experience-rated State UI contribution rates. If this view were to prevail, a method for crediting worker tax payments to individual employers would need to be devised. Finally, worker representatives could argue that the tax receipts should be used to raise benefits (e.g., maximum durations and/or maximum weekly benefits). All of the interested parties would be more likely to raise these issues if a larger fraction of UI benefits were taxable.

#### **Maintaining the strength of UI as an automatic stabilizer**

One objective of UI is to help stabilize the economy by maintaining consumer purchasing power when aggregate production falls. The program acts as an "automatic stabilizer" of the gross national product (GNP) because benefit payments change automatically in a business cycle and do not require discretionary action, such as legislation to reduce tax rates and/or to increase government purchases of goods and services. If UI benefits were taxable, this automatic stabilizing aspect of the program would be weakened, because part of the benefits would go back to the Treasury as tax receipts and would not go to families as disposable income.

The impact of this effect should not be exaggerated. According to U.S. Treasury Department estimates, making UI benefits fully taxable would take back about \$2.7 to \$2.8 billion out of a \$14.1 billion total benefit outlay in fiscal year 1980.<sup>31</sup> Thus, 80 percent of UI benefits would go to workers under full taxability. Since responding propensities are higher among lower-income workers (who would be taxed at a lower rate), more than 80 percent of the program's maximum stabilizing impact would be retained when benefits are fully taxable. Under the current law, almost all of its potential stabilizing impact is retained.

#### **Summary**

Even after the recommendations of the National Commission on Unemployment Compensation have been

made, taxation of UI benefits will continue to be an important and controversial policy issue. Among the considerations that will affect people's conclusions on this issue, answers to the following four questions are crucial: (1) Has the change in the composition of family income since the 1930's been of sufficient magnitude to warrant a reexamination of the tax-exempt status of State UI benefits? (2) How serious are the tax inequities and labor market distortions caused by the nontaxability of UI benefits? (3) Is the income from State UI benefit payments the same as income from property ownership and from labor market earnings? (4) Would the social insurance character of State UI be preserved if benefits continued to be received as a matter of right but subject to income taxation? Different answers to these questions would influence one's views about the desirability of taxing UI benefits.

After reviewing the evidence and the arguments pro and con, the author has concluded that full taxation of UI benefits is the correct policy. Following are short responses to the four questions listed above.

(1) Yes. Family income composition has changed markedly. The growth in transfer payments and income tax obligations since the mid-1930's now makes it important to treat transfers, particularly such social insurance benefits as UI, like wages and property income under the personal income tax.

(2) Labor market distortions and tax inequities are serious, as suggested by the examples in Table 2, and can be partially remedied by making UI benefits taxable. Low-wage/high-income workers get very preferential treatment vis-à-vis other workers when UI benefits are received as tax-exempt income.

(3) Yes. The families who receive UI benefits are not much different from other families when the means and the variances in their annual income distributions are compared. Both types of families receive income from several sources, and one source (government transfers generally and UI benefits specifically) should not be received on a tax-free basis.

(4) Yes. When State UI was created, the bulk of covered wages were not taxable under the income tax. Now that wages are largely taxable, UI benefits should be taxable also. Potential eligibility, gross weekly benefits, and net (after-tax) weekly benefits can continue to be matters of right, and all will rise as wages rise, even when UI benefits are fully taxable.

Implementing full taxability would introduce a form of double taxation and would impose added burdens on some workers if taxes were withheld from UI benefits. If such withholding is ever implemented, it should be done at a low, flat rate, and workers should have the option of designating a zero withholding rate. Implementing full taxability would still leave intact the largest loopholes in the tax system, loopholes that give dis-

proportionately favorable treatment to income from capital. Closing one loophole, however, improves the overall fairness of the tax system and, in this particular instance, reduces important incentives for labor market distortions. The current tax treatment of UI benefits represents an important first step in the area of making government transfer payments fully taxable.

## Notes

1. The exact citation is I.T. 3230, 38-2, C.B. 136. The ruling was superseded in 1970 by Rev. Rul. 70-280, 1970-1 C.B. 13.

2. See Martin Feldstein, "The Economics of the New Unemployment," *The Public Interest* 33 (Fall 1973), pp. 1-42; *Lowering the Permanent Rate of Unemployment*, a study prepared for the Joint Economic Committee, 93rd Congress, First Session, 1973; and "Unemployment Compensation: Adverse Incentives and Distributional Anomalies," *National Tax Journal* 27 (June 1974), pp. 231-44.

3. The exact amount of income tax revenue generated in fiscal year 1980 by the current tax treatment of UI benefits is not certain. The U.S. Treasury Department estimates the amount to be \$.25 billion, and the Congressional Budget Office estimates it to be \$.45 billion. Although the estimates are quite different, both agree that the revenue effect is small.

4. In the 1980 legislative session, for example, the staff of the Congressional Budget Office has been asked to examine the consequences of lowering the tax-exempt income cutoffs for couples and single individuals to \$15,000 and \$10,000, respectively.

5. U.S. Executive Office of the President, *Economic Report of the President 1980* (Washington, D.C., U.S. Government Printing Office, 1980), Tables B20 and B21.

6. There are some small exceptions to this statement. The receipt of retirement and/or disability-related government transfers can disqualify a worker from receiving State UI benefits. Some State UI programs provide dependents' benefits to unemployed heads of families.

7. See Ronald Ehrenberg, Robert Hutchens and Robert Smith, "The Distribution of Unemployment Insurance Benefits and Costs," Technical Analysis Paper No. 58, U.S. Department of Labor/OASPER (Washington, D.C., U.S. Government Printing Office, 1978), which draws on 1970 income and work experience data in the Current Population Survey. The same pattern was found in an analysis of the 1976 Survey of Income and Education (SIE). The SIE shows that there were 6.5 million UI recipients with some unemployment in 1975 and 1.9 million with no unemployment. The latter group is larger than can be explained by the payment of benefits for partial unemployment.

8. See Martin Feldstein, "Unemployment Compensation" and "New Evidence on the Distribution of Unemployment Insurance Benefits," *National Tax Journal* 30 (June 1977), 231-44; and Joseph Minarik, "Appendix: The Yield of a Comprehensive Income Tax," in Joseph Pechman, ed., *Comprehensive Income Taxation* (Washington, D.C., The Brookings Institution, 1977). Data in the tax models of the U.S. Treasury Department and the Congressional Budget Office also can be examined to show the income characteristics of UI recipients. For an example of the application of Treasury Department data to the study of OASDI recipients, see Mickey Levy, *The Tax Treatment of Social Security* (Washington, D.C., American Enterprise Institute, 1980).

9. The overall importance of UI benefits in aggregate income for any of the income classes, however, is quite modest. Thus, in 1970 the \$4.2 billion of UI benefits represented only 0.6 percent of family income. For families in the under-\$5,000 income class, UI benefits were just 2.1 percent of 1970 family income.

10. Ehrenberg and others, "The Distribution," Chapters 3 and 4.

11. See Wayne Vroman, "Unemployment Insurance: New Goals for the 1980's?" *Proceedings of the Industrial Relations Research Association* (Chicago, August 1978). When State UI was founded, there was a consensus that program benefits should replace half of the wage loss attributable to unemployment. This could be effected today by taxing benefits and raising the weekly benefit maxima. As a practical matter, raising the weekly maxima to a level of twice the State's average weekly wage would yield a 50 percent replacement of after-tax wages for the vast majority of all covered workers.

12. A tax expenditure is defined as a "revenue loss attributable to provisions of the Federal tax laws which allow a special exclusion, exemption, or deduction from gross income or which provide a special credit, a preferential rate of tax, or a deferral of tax liability." See U.S. Executive Office of the President, *Special Analyses Budget of the United States Government Fiscal Year 1981* (Washington, D.C., U.S. Government Printing Office, 1980), pp. 207-238, and specifically Table G1, p. 232.

13. In Example 2 of Table 2, when half of UI benefits are made taxable, the replacement rate falls from .83 to .67.

14. See *Comprehensive Income Taxation* (Washington, D.C., The Brookings Institution, 1980), edited by Joseph Pechman, one of the leading advocates of comprehensive income taxation. In this volume, Richard Goode's "The Economic Definitions of Income," which provides a general survey of possible definitions of income, and Emil Sunley's "Employee Benefits and Transfer Payments," which discusses issues involved in

taxing payments, are particularly relevant to this argument.

15. See Goode, "The Economic Definitions," and Sunley, "Employee Benefits."

16. U.S. Department of Health, Education and Welfare, "Social Security Financing and Benefits: Reports of the Advisory Council on Social Security," mimeographed, 1979. This recommendation is also made in Levy, *Tax Treatment*.

17. U.S. Executive Office of the President, *Special Analyses Budget*, p. 232.

18. Stephen Marston, "The Impact of Unemployment Insurance on Job Search," *Brookings Papers on Economic Activity* 1 (1975), pp. 13-60.

19. Gary Fields, "The Direct Labor Market Effects of the U.S. Unemployment Insurance System: A Review of Recent Evidence," *Industrial Relations* 16 (February 1977), pp. 1-14; Alan Gustman, "Analyzing the Relation of Unemployment Insurance to Unemployment," mimeographed (Dartmouth College, 1980); Daniel Hamermesh, *Jobless Pay and the Economy* (Baltimore, The Johns Hopkins Press, 1977), Chapter 3; Robert Topel and Finis Welch, "Unemployment Insurance: What the Theory Predicts and What the Numbers (May) Show, Survey and Extensions," mimeographed (Los Angeles, UCLA, 1980); and Finis Welch, "What Have We Learned from Empirical Studies of Unemployment Insurance?" *Industrial and Labor Relations Review* 30 (July 1977), pp. 451-61.

20. See U.S. General Accounting Office, "Unemployment Insurance—Inequities and Work Disincentives in the Current System" (Washington, D.C., U.S. General Accounting Office, 1979), Chapter 3. In measuring replacement rates, it emphasizes the reductions in taxes and work expenses associated with unemployment but ignores losses in fringe benefits and forgone money wage growth.

21. "Welfare objectives" means roughly the payment of benefits to those in society who have the lowest incomes. "Insurance objectives" roughly means the payment of benefits in proportion to the size of previous contributions. One statement about these dual objectives is found in Robert Myers, *Social Insurance and Allied Government Programs* (Homewood, Ill., Richard D. Irwin, 1965), p. 6.

22. This estimate is derived from U.S. Executive Office of the President, *Special Analyses Budget*, pp. 230-234, Table G1. To the sums appearing in Table G1, \$.25 billion has been added as an estimate of the taxes collected from UI benefits under the current law.

23. See, for example, William Haber and Merrill Murray, *Unemployment Insurance in the American Economy* (Homewood, Ill., Richard D. Irwin, 1966), p. 26.

24. A few States also tax employees. In recessions, general revenues from the U.S. Treasury provide a temporary supplemental source of funds to State pro-

grams experiencing trust fund difficulties. Subject to these two qualifications, the program is financed entirely by employer payroll taxes.

25. The general statement is that a tax levied on a factor of production is paid by that factor regardless of the side of the market from which the tax is levied. For a clear statement of this proposition, see Arnold Harberger, "The Incidence of the Corporation Income Tax," *Journal of Political Economy* 70 (June 1962), pp. 215-40. Application of this principle to UI is found in Ehrenberg and others, "The Distribution," and in Charles McClure, "The Incidence of the Financing of Unemployment Insurance," *Industrial and Labor Relations Review* 30 (July 1977), pp. 13-60. Discussions of payroll tax incidence are also found in John Brittain, *The Payroll Tax for Social Security* (Washington, D.C., The Brookings Institution, 1972) and Wayne Vroman, "The Incidence of Compensation Insurance Premium Payments," in National Commission on State Workmen's Compensation Laws, *Supplemental Studies*, vol. 2 (Washington, D.C., U.S. Government Printing Office, 1973), pp. 241-70. Recent empirical analysis of payroll tax incidence is found in John Hagens and John Hambor, "The Macroeconomic Effects of a Payroll Tax Rollback," *Eastern Economic Journal* (in press) and Martin Baily, "Inflation and Social Security Financing," paper prepared for the National Commission on Social Security (unpublished, 1980).

26. This double taxation would be more directly obvious if OASDHI benefits were made taxable. That program is funded by employee as well as employer payroll taxes. In OASDHI it is also likely that the employer contributions ultimately reduce the real wages of workers. Thus, to assess the true extent of double taxation in that program (if benefits were taxable), it would also be necessary to examine the issue of employer payroll tax incidence.

27. Seidman's position has been articulated in statements before the National Commission on Unemployment Compensation and in testimony regarding the 1979 Social Security Advisory Council's recommendations. See Bert Seidman, "Statement on the Recommendations of the 1979 Advisory Council on Social Security," Subcommittee on Retirement Income and Employment of the House Select Committee on Aging, March 11, 1980.

28. See Congress of the United States, Congressional Budget Office, "Tax Expenditures: Current Issues and Five-Year Budget Projections Fiscal Years 1981-85" (Washington, D.C., Congressional Budget Office, 1980), p. 13, Table 2.

29. Seven tax expenditures were assigned to income from capital: (1) investment tax credit, (2) capital gains, (3) deductibility of interest on owner-occupied homes, (4) deductibility of property tax on owner-occupied homes, (5) reduced tax rates on the

first \$100,000 of corporate profits, (6) exclusion of interest on general-purpose State and local debt, and (7) capital gains at death. Three big tax expenditures on labor income are (1) exclusion of employer contributions for medical insurance premiums and medical care, (2) net exclusion of pension contributions and earnings from employer plans, and (3) exclusion of OASDHI benefits for retired workers. The two that could not be assigned uniquely were (1) deductibility of nonbusiness State and local taxes (other than owner-occupied homes and gasoline) and (2) deductibility of charitable contributions other than education and health. See Congress of the United States, "Tax Expenditures," p. 22, Table 4.

30. See Congress of the United States, "Tax Expenditures," p. 32, Table A1.

31. See U.S. Executive Office of the President, *Special Analyses Budget*, p. 31, Table A12 and p. 233, Table G1. To the \$2.5 billion tax expenditure appearing in that document one must add the \$.25 billion Treasury estimate of revenues raised by the current law.

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# Duration of Benefits



# Implications of Potential Duration Policies

Arnold Katz

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**T**he administrative rules under which unemployment benefits are paid vary widely from State to State and from year to year. Differences in eligibility requirements, weekly benefits, potential duration of benefits, waiting rules, and enforcement of disqualifications have important consequences not only for individuals in different States but also for the labor market and for the macroeconomic influences of unemployment insurance (UI) programs. Unfortunately, little is known of the consequences of such variations.

This report describes the consequences of variations in potential duration policies. These policies are the Federal and State rules that determine the maximum periods over which benefits may be paid.

At the State level, there are basically two approaches to determining potential duration, either the so-called variable formulae or the uniform formulae.

The variable formulae determine potential duration according to work experience, so that claimants who have worked for a longer time during a recent base period are entitled to draw longer benefits.

Under the uniform formulae, all claimants living in a given State are entitled to draw benefits for the same period (usually 26 weeks), provided they have worked the minimum number of weeks to qualify.

The various State limits have been extended provisionally on a number of occasions during times of high unemployment by a series of Federal laws enacted since 1959. Differences in State practice interact with the national adjustments so that the additional benefits provided by Federal legislation have also varied from State to State in each recession.

Policymakers face a dilemma when they choose a potential duration formula. If they choose to lengthen the potential duration of benefits, exhaustion rates will decline because the unemployed will be able to collect benefits for a longer period. At the same time, however, this may encourage longer unemployment—a charge frequently leveled against the UI system.

Most of the previous studies of these issues have looked at the implications of potential duration policies for unemployment and exhaustion rates separately. The

evidence indicates, however, that exhaustion rates are highly sensitive to the length of the benefit period.

Our study examines the experiences of a random sampling of unemployed workers in several States during the late 1960's and 1970's. We have tried to advance the methodology of prior studies by focusing on how potential duration policies influence the probabilities of remaining unemployed. The resulting estimates enable us to project the impact of changes in payment rules on the distribution of unemployment as a whole. From the implied distributions it is possible to calculate the trade-offs in mean lengths of unemployment vs. exhaustion rates implied by specific policy alternatives.

## Principal Findings

- For each additional week of potential benefits, unemployment increases by approximately two-tenths of a week. This finding departs from previous studies which found an increase of from one-tenth to four-tenths of a week for each additional week of potential benefits. We found those earlier estimates were subject to systematic biases, with a range too uncertain for projecting the implications of changes in potential duration policies.

- For men, this extended unemployment is about the same whether the increased benefits are regular State payments or benefit supplements available during recessions. For women, unemployment appears to increase by somewhat less if regular benefits are available longer, and about the same as men if supplemental benefits are increased.

- The average annual rate of unemployment in 1975

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rose by about 1.3 percentage points because of benefit supplements.

During the 1974–75 recession, those who exhausted regular benefits (26 weeks usually) became eligible for up to 39 more weeks because of two laws, the Extended Benefits Act of 1970 and the Emergency Unemployment Compensation Act of 1974 (which created the Federal Supplemental Benefits Program). These supplementary benefits induced claimants to remain unemployed 5.75 weeks longer than they would have otherwise.

- Supplemental benefits slowed exhaustion rates by nearly one-third of the level to which they might otherwise have risen. The probability of claimants' exhausting the total potential benefit package was about one-third lower than the probability of their exhausting regular benefits in full employment years.

- Benefits would have to have been extended in 1975 by about 4 weeks, on average, to have fully compensated for the mean cyclical increases in lengths of unemployment expected without any supplementary benefits. The extension required to maintain exhaustion rates at their prerecession levels would have been about 11 weeks. As it turns out, the benefits available under the Extended Benefits Act alone would have been at about the right level to have kept (total) exhaustion rates from rising.

- In general, exhaustion rates respond more to changes in potential duration than to average weeks of unemployment. Although it varied from case to case, a 1 percent increase in the potential duration of benefits reduced the mean probability of exhausting benefits by a greater percentage than it raised average weeks of claimed unemployment in every situation studied.

- Higher weekly benefits amounts encourage longer unemployment if the claimant is not a regular worker, but rather only weakly attached to the labor force. Although this is a study of potential duration policies, it was necessary to estimate how changes in weekly benefit amounts affect unemployment in order to control for extraneous influences. Our estimates do indicate a variation according to a claimant's qualifying level which has not been evident in earlier research on weekly benefit amounts.

## Previous Studies

The possibility that UI may encourage claimants to remain unemployed has been widely studied. While the earliest studies examined how the behavior of claimants is affected by changes in weekly benefit amounts, they neglected other aspects of UI such as the potential duration of benefits. The first potential duration studies,

moreover, tended to analyze the relationship between potential benefit periods and compensated (rather than total) unemployment. Not surprisingly, studies of this type strongly linked each additional week of potential benefits with an increase in the length of compensated unemployment. Estimates of longer unemployment ranged as high as eight-tenths of a week to nine-tenths of a week in these studies.

More recent studies use more sophisticated techniques and better data to analyze the potential of UI to lengthen unemployment, but results are mixed. A few investigators have also examined the effects of potential duration policies on exhaustion rates with more success. We limit our comments here to the most representative examples to show the drift of the more recent findings.

## The Georgia study

The research of Newton and Rosen attacks earlier work which uses Tobit analysis to correct for the misuses of measures of compensated weeks of unemployment.<sup>1</sup> They observe UI claimants in Georgia to determine responses to individual differences in potential duration of benefits under Georgia laws. Georgia is a variable duration State. Newton and Rosen estimate an equation of the form:

$$\bar{T} = \alpha_0 + \alpha_1 b' + \alpha_2 D + \alpha_3 D^2 + \alpha_5 X$$

in which  $\bar{T}$  is average weeks of unemployment;  $b'$  is the difference between claimants' after-tax wage rates and weekly UI benefit amount;  $D$  is potential duration of benefits; and  $X$  is a shorthand for a small number of control variables describing race, sex, and State unemployment rates.

When evaluated at the mean, their estimates of  $\alpha_2$  and  $\alpha_3$  imply that an additional week of potential benefits increases claimant unemployment by about four-tenths of a week.

The limitation of this analysis to a single State restricts its usefulness. In addition, the small number of control variables means that individual differences in potential duration are strongly correlated with personal characteristics. Persons with strong attachments to the labor force may be more likely to search for work over longer periods. If so, then Newton and Rosen will have overestimated the changes in unemployment due purely to a change in potential duration policies.

## The New York study

Solon also examines the behavior of UI claimants in a single State, New York.<sup>2</sup> New York, a uniform State, undertook a 6-month, post-exhaustion study of regular UI claimants in which subgroups were interviewed at different starting dates during 1973–74.

The later stages of the study coincided with a period of rising unemployment, when extended benefits be-

came available to some claimants under the 1970 Act. Solon was able to compare the behavior of those claimants with the behavior of those whose interviews had been completed in the earlier stages and who were therefore not entitled to extra compensation. According to his estimates, for each week additional benefits were collected, unemployment was increased by three-tenths of a week. This figure is difficult to interpret partly because it applies only to those who exhausted regular benefits.

In addition, the nature of the New York experiment was such that some of the exhaustees became eligible for extended benefits (EB's) only toward the end of their 6-month interviewing period, whereas others were eligible from the time they entered the sample. Although both groups were entitled to the same EB's, Solon measures EB's in an unusual way, that is, according to the number of weeks that EB's were available during the respondent's 6-month interview period.

This introduces a bias because many of the respondents with shorter EB's (by Solon's measure) were likely to have gone back to work by the time they became eligible for EB's; yet they might not have done so had EB's been available earlier. Their unemployment is therefore misrepresentative and understated relative to that of respondents who became eligible at the start of the interviewing period and were entitled to the maximum EB's (by Solon's measure). The net effect is to overstate the increase in unemployment attributable to EB's. Solon's estimate, like that of Newton and Rosen, is therefore probably on the high side.

### The 15-State study

Moffitt and Nicholson looked at a sample of claimants in 15 States who were entitled to Federal Supplemental Benefits (FSB) in 1975.<sup>3</sup> They discovered a weaker influence than Solon, finding that each additional week of potential benefits increased unemployment by only one-tenth of a week.

However, there are reasons for believing that this is an underestimate.

First, Moffitt and Nicholson were confronted with a limited variation in the additional weeks of benefits provided by FSB, since all the sample claimants were entitled to similar extensions. To increase the variation, they lumped other nonwage income with UI, treating the two as perfect substitutes. This combination is a necessarily weaker disincentive than UI alone, since one must remain unemployed to receive UI.

Second, they chose to estimate the parameters of a model which abstracts from the uncertainty of labor market information. As a result, their model implies that applicants choosing initially *not* to accept FSB would make precisely the same decision if FSB became available for a longer period. In their model, this fol-

lows because decisions are based purely on the leisure value of unemployment, ignoring it as time also spent in search of work. The leisure value of additional unemployment of claimants who rejected FSB must be low. This remains the same if FSB is increased.

This is unreasonable. It is uncertain whether *all* claimants, regardless of what they chose to do beforehand, can afford to wait longer for preferred alternatives if their UI benefits are increased. In ignoring this uncertainty, Moffitt and Nicholson assume that the behavior of a sizable group was unaffected by FSB. They undoubtedly underestimate its true impact for the population of UI recipients. Their estimate seems to be a good candidate for a lower bound on this account.

### A three-factor study

Another study, by Nicholson and Corson, tries to get at the complex interrelations between potential duration policies, unemployment, and exhaustion rates.<sup>4</sup> They estimate the following relationship:

$$\Pi = \alpha_0 + \alpha_1 \bar{T} + \alpha_2 D_1$$

where  $\Pi$  is the percentage of claimants exhausting regular State benefits;  $\bar{T}$  is the average duration of unemployment; and  $D_1$  is the potential duration of regular State benefits. Implications for  $\bar{T}$  are inferred from a second relationship:

$$\bar{T} = \beta_0 + \beta_1 + \beta_1 D_2 + \beta_2 X$$

where  $D_2$  is a dummy variable equal to 1 when EB are authorized and  $X$  is a shorthand for a list of other State attributes. Since the model uses quarterly State averages for 1965-74 as estimates and since there are no quarterly estimates of  $\bar{T}$ ,  $\beta_1$  is identified by assuming, asymmetrically, that  $\bar{T}$  and  $D_1$  are independent. Since  $D_2$  is a dummy variable, it is difficult to convert the Nicholson and Corson estimate of  $\beta_2$  to a value that is comparable to other studies. If, however, it is safe to assume that EB's were available for an average of 10 to 13 weeks, the results of Nicholson and Corson would imply that each additional week of benefits increased unemployment by from .21 weeks to .28 weeks. This falls near to the midpoint of the findings from other recent studies, but stronger evidence is needed for believing that it approximates the true relationship.

The following steps show that their estimate is biased and the direction of the bias is not predictable: rewrite the second relationship so that  $\bar{T} = \beta_0 + \beta_1 D_2 + \beta_2 X + \beta_3 D_1$ , that is, relax the Nicholson-Corson assumption that  $\beta_3 = 0$ . Substituting  $\bar{T}$  into the equation for  $\Pi$ , it may be seen that the regression coefficient for  $D_2$  (which equals  $\beta_2$  under their assumptions) becomes  $(\alpha_1 \beta_2) / (-\alpha_1 \beta_2 - \alpha_2) \leq \beta_2$  as  $\alpha_1 (1 + \beta_3) \leq -\alpha_2$ . The bias is unpredictable because the values of the  $\alpha$  and  $\beta$  are what need to be estimated.

Additionally, Nicholson and Corson find that a 1-week increase in the potential duration of benefits reduces the probability of exhausting regular State benefits by about .05 times the initial rate. Hight, who also looked at the relationships between potential duration policies and exhaustion rates, discovered that each additional week of potential EB's reduced the rates at which claimants exhausted total benefits by almost the same amounts.<sup>5</sup> Although the similarities in the results may imply that changes in exhaustion rates are easier to predict, more evidence is needed.

This brief review should give the reader a sense of the questions that are still unresolved. Except for Newton and Rosen, recent studies have been mostly concerned with what has happened as benefits became available for longer periods in times of high unemployment. The weight of the evidence that these provisional benefits increase unemployment seems fairly strong, but the magnitude of the increase is highly uncertain.

The best that one can reasonably say is that unemployment may have increased anywhere from an average of one-tenth to four-tenths of a week for each additional week of potential benefits. This translates to an uncomfortably wide margin for judging the impact of the changes in potential duration which actually occurred during the recessions of recent years. Even less is known of the consequences of differences in potential duration policies under the regular State programs in times of comparatively fuller employment.

## Data

For this type of study, there are broadly two types of data available—administrative records or household interviews. Each has its limitations.

Administrative records are limited to claimants of UI benefits and contain information on far fewer characteristics of the unemployed than can be observed through household interviews. Household surveys, on the other hand, usually fail to obtain very reliable data on either the numbers of unemployed entitled to receive benefits or their benefit amounts, as, for example, Clasen demonstrated.<sup>6</sup>

While it is hoped that the data available for studies of UI continue to improve, in the meantime one is compelled to look at sources of both types and to try to make the best of each.

Our study seeks to do this by merging administrative information from State UI laws with information about the unemployed obtained through household interviews recorded by the Census Bureau in its Annual Demographic File (ADF). The ADF is a repository for individual responses to the Current Population Survey (CPS) compiled each March.

We merged ADF records (in ways to be explained)

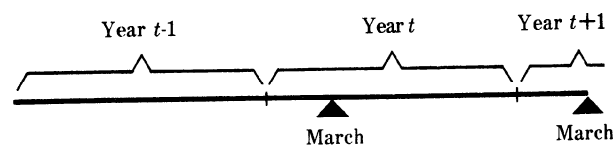
to construct a microrecord of unemployment behavior covering the years 1968–71 and 1973–78. From this, we hoped to learn about individual responses to State differences in UI entitlements and to the changes in the length of benefit periods in recent years of high unemployment.

In selecting a sample of all the unemployed—claimants and nonclaimants—we avoided some of the pitfalls encountered in looking only at claimants, whose characteristics change in response to the UI variables being studied. To resolve the lack of reliable information about UI payments in the CPS, we imputed the benefits to which each unemployed member of the sample was entitled by means of a computer program that codifies State UI laws. Feldstein made use of similar imputations in his studies of CPS data, although in a somewhat different context.<sup>7</sup>

## How ADF files were merged

The imputations are an imperfect substitute for a more exact record of benefit entitlements. To appreciate how they were made, it is necessary to explain the procedures for merging ADF files over the sample period. In the CPS, two sets of information are obtained every March. One describes individual characteristics at the time of the survey (say year  $t$ ); the other relates to income and work experience in the preceding year ( $t-1$ ). The Census Bureau then interviews each household again a year later. By combining the results of both surveys, it is possible to observe panels of CPS respondents (if they do not move between the successive interviews) over a 27-month interval.

The figure below is a schematic of the representative span for such panel data, the triangles denoting the survey dates.



The panel feature is useful for studying UI because the information that can be obtained about work experience and earnings in year  $t-1$  is often appropriate for inferring whether persons unemployed in  $t$  were eligible for benefits and in what amounts. The followup information obtained in  $t+1$  also gives insight into how long persons exhausting benefits are likely to remain unemployed thereafter. This is an important feature because the data currently available from administrative sources about the unemployment of UI claimants are limited mainly to compensated weeks.

As a first step, we constructed matched data records, whenever feasible, to cover the time spans indicated in the above figure.

It should be stressed that persons who change addresses between  $t$  and  $t+1$  are lost in this process. Those who move will therefore tend to be underrepresented in our sample. Studies of similar procedures (by Horvath, for example) indicate that it is mostly young people, but also black males to a lesser degree, who are most likely to be missed.<sup>8</sup>

### Selecting the sample

The next step was to select a sample of unemployed. This presented a difficulty because the ADF reports do not reveal how annual earnings and employment are distributed over the year, and State UI laws require quarterly information in most instances. We decided to restrict the sample to persons whose unemployment began between January 1 and the March CPS surveys of year  $t$ . Persons who were not unemployed in  $t$  or whose spells of unemployment did not satisfy this criterion were therefore dropped from the analysis. Eligibility for benefits and the imputed benefit amounts were based, for each person selected, on the experience of year  $t-1$ .

In effect, ours is a sample of matched unemployed in  $t$  whose base period for UI claims coincides with calendar  $t-1$ . Technically, the final product does not fit this description exactly, because the base period for UI claims in most States is defined as the first 12 of the 15 months preceding the start of unemployment. But the approximation is likely to be quite close.

For those selected, benefit years begin with the start of unemployment in year  $t$ . A claimant may be eligible to receive benefits over more than one spell of unemployment within the same benefit year. To help assure that the weeks of unemployment studied coincide with the total compensated, we looked at a broader period than the individual spell. We refer to this interval as an episode and include all weeks of unemployment originating in year  $t$ , independent of spells. The episodes of sample respondents who are unemployed when interviewed a year later are classified as spanning years  $t$  and  $t+1$ .

Complexities in State UI laws relating to the treatment of high-quarter earnings, partial benefits, and disqualifications had to be ignored in the benefit imputations. Appendix A describes the procedures in more detail and discusses the potential biases. Overall, however, the estimates match up closely with the actual averages for the sample States.

The following regression relates average imputed weekly benefit amounts ( $b_i$ ) to the published State averages for our study years:

$$b_i = 2.153 + 1.021 b_p \quad R^2 = .918 \\ (1.435) \quad (.025)$$

This shows that the  $b_i$  are not significantly different from the  $b_p$ , and the correlation is strong. This test

establishes that the imputations are unbiased overall. The comparison of averages, of course, gives no indication of the discrepancies between actual and imputed benefits for specific individuals. There are bound to be significant discrepancies at the individual level, but they are random and offsetting. Implications of these individual errors for our findings are discussed below.

The matched pairs of CPS reports were constructed for  $t$  and  $t+1$  equal to 1968-69, 1969-70, 1970-71, 1973-74, 1974-75, 1975-76, and 1977-78. Technical changes in the census coding procedures made it unreliable to attempt the matching process for 1971-72, 1972-73, and 1976-77.

The years sampled span an interesting period for the study of UI policies. The earlier years were ones of comparatively full employment. The latter include the 1974-75 recession when benefit periods were extended under both the 1970 Act and the 1974 Act. The final sample includes 2,956 cases, which are about evenly divided between the sexes. Table 1 shows how these are distributed over the sample States and the study year  $t$ 's. The States that are represented include all those that can be separately identified in the CPS.<sup>9</sup>

Table 2 contains a summary of statistics from the UI imputations. These show a roughly constant potential duration of benefits under regular State programs. The principal source of variability is due to the differences (not shown in this table) between variable and uniform States. There were no provisionally extended

TABLE 1. Sample States

State	Years in sample	Sample size
California	1968-70, 1973-75, 1977	442
Colorado	1973-75, 1977	31
Connecticut	1968-70, 1973-75, 1977	65
District of Columbia	1968-70, 1973-74, 1977	19
Florida	1968-70, 1973-75, 1977	126
Georgia	1968-70, 1973-75, 1977	61
Illinois	1968-70, 1973-75, 1977	184
Indiana	1968-70, 1973-75, 1977	99
Kentucky	1968-70, 1977	34
Louisiana	1968-70, 1973-75, 1977	79
Maryland	1968-70, 1973-75, 1977	59
Massachusetts	1968-70, 1973-75, 1977	102
Michigan	1968-70, 1973-75, 1977	144
Minnesota	1968-70, 1977	28
Missouri	1968-70, 1977	52
New Jersey	1968-70, 1973-75, 1977	169
New York	1968-70, 1973-75, 1977	350
North Carolina	1973-75, 1977	58
Ohio	1968-70, 1973-75, 1977	242
Oregon	1968-70, 1977	36
Pennsylvania	1968-70, 1973-75, 1977	281
Tennessee	1968-70, 1977	46
Texas	1968-70, 1973-75, 1977	163
Washington	1973-75, 1977	27
West Virginia	1969-70, 1977	17
Wisconsin	1968-70, 1973, 1977	42
Total		2,956

TABLE 2. UI characteristics of persons in sample for year  $t$ 

	1968	1969	1970	1973	1974	1975	1977
Percent eligible for UI	64	62	66	59	63	65	54
Weekly benefit amount	\$39.65	\$43.16	\$43.72	\$53.79	\$59.88	\$72.15	\$70.25
Wage replacement ratio	.49	.46	.47	.47	.48	.51	.51
Potential duration under State programs (weeks)	23.76	23.32	23.27	23.18	24.18	23.90	23.34
Potential duration of extended benefits (weeks)	—	—	—	1.51	7.55	35.80	15.76
Percent at maximum weekly benefit amounts	35	37	36	36	32	33	27

benefits in 1968–70. Benefit payments were lengthened in 1973 in selected States under the automatic “triggers” established by the 1970 Act. Longer benefits were triggered in all States under the same Act in 1974, but the average increase was comparatively smaller than in 1975, as the recession deepened and UI payments were stretched out to as much as 65 weeks, under the 1974 Act. Later amendments reduced the combined total potential duration from regular benefits, EB’s, and FSB’s to a maximum of 52 weeks.

The unemployed in our sample were eligible to receive up to the maximum of 65 weeks in total benefits in 1975 and up to 52 weeks under the continuation of the FSB program in 1977. Under both the EB and FSB programs, benefit extensions are a multiple of the potential durations under State programs. This means that, on the average, claimants in uniform States tend to be treated more liberally, receiving longer extensions, than claimants in the variable States.

### Estimating Technique

Since searching for work is a dynamic stochastic process, it poses a number of complex econometric difficulties which have not yet been fully resolved. Our study applies methods recently developed by Lancaster and Nickell to examine how wage-replacement ratios influence the duration of unemployment in the United Kingdom.<sup>10</sup> Their methods overcome only some of the econometric problems. Ours is the first to apply their approach to comparisons of how both weekly benefit amounts and potential duration policies influence unemployment.

To see how these influences can be traced, let:

$$\theta(t/x_i) = e^{x_i'\beta} \quad (1)$$

stand for the likelihood of unemployed person  $i$  completing an episode of unemployment in period  $t$ , either by becoming reemployed or by withdrawing from the labor force.  $x_i$  is a vector of personal characteristics, including the UI payment rules, applicable to  $i$ .  $\beta$  is a vector of coefficients, the same for everyone, which determine how the various  $x_i$  characteristics affect  $\theta$ . The specific form we assume for (1) treats the unemployment experience as a momentary first-order Markov

process whose duration hinges on  $\theta$ , and hence the  $x_i$  characteristics of different individuals.

Given (1), the distribution of time spent in any single episode of unemployment is exponential and the same for individuals with the same  $x_i$ . Let:

$$g(t/x_i) = \theta(t/x_i)e^{-t\theta(t/x_i)} \quad (2)$$

stand for the probability density of such times. Assumption (2) differs from earlier studies which often treat the times spent unemployed (for persons with the same  $x_i$ ) as if they were normally distributed.

From (2) it follows that the mean duration of an episode of unemployment is  $e^{-x_i'\beta}/\beta$  with variance  $e^{-2x_i'\beta}/\beta$ . Let  $G(T/x_i)$  be the cumulative density corresponding to (2), or the probability that  $t$  is less than or equal to  $T$  weeks. Then it follows that if the potential duration of benefits is  $D$  weeks,

$$G(D/x_i) = e^{-De^{x_i'\beta}} \quad (3)$$

is the probability of an  $x_i$  exhausting unemployment benefits.

Our empirical analysis estimates the  $\beta$  coefficient in (1). If we let  $x_b = b$  stand for the weekly UI benefit and  $x_D = D$  their potential duration, then the estimates of  $\beta_b$  and  $\beta_D$  indicate how the  $b$  and  $D$  elements of  $x_i$  affect  $\theta$ . From this we can then infer how variations in both affect the mean duration of unemployment and the probabilities that benefits are exhausted for different groups.

The procedure for estimating  $\beta$  is a maximum likelihood technique that builds on the panel features of our data source. To see the method, let  $t_1$  be the length of time that one of the members of our sample with characteristics  $x_i$  is unemployed at the date of the first March interview. The sample cases can then be regarded as falling into two separate groups—the ones whose episodes of unemployment are completed by the date of the second interview a year later, and those who are still unemployed at that time. Let  $t_2$  be the cumulative weeks of unemployment contained in the sample episodes for either group at the date of the second interview. Then given (1), the probability of observing  $x_i$  persons in the first group is:

$$\frac{g(t_2/x_i)}{1 - G(t_1/x_i)} \quad (4a)$$

whereas:

$$\frac{1 - G(t_2/x_i)}{1 - G(t_1/x_i)} \quad (4b)$$

is the probability of observing persons with the characteristics  $x_i$  in the second group.

There is a minor complication in the estimation of these probabilities because the cumulative unemployment  $t_2$  is reported in class intervals, and (4a) and (4b) must be approximated. Given the interval reports, the correct likelihood of observing, say, a total of  $N_1$  individuals in the first category and  $N_2$  in the second is:

$$\prod_i \frac{G(t_1/x_i) - G(t_1/x_i)}{1 - G(t_1/x_i)} \prod_i \frac{1 - G(t_1/x_i)}{1 - G(t_1/x_i)} \quad (5)$$

where  $t_L$  is the lower limit and  $t_U$  the upper limit of the class intervals.

The estimates of the  $\beta$  coefficients reported in the next section are the values maximizing the likelihood function (5) for our sample of the unemployed. Letting  $\bar{T}(x_i)$  represent the mean length of an episode of unemployment and  $\Pi(x_i)$  the probability of exhausting benefits, it should be noted that:

$$\frac{\partial T}{\partial D} = -\beta_D e^{-x_i' \beta} \quad (6a)$$

and

$$\frac{\partial \Pi}{\partial D} = -\theta(D/x_i) [\beta_D D + 1] \quad (6b)$$

evaluate the influences of changes in potential duration policies on  $T$  and  $\Pi$  respectively. Similar expressions may be derived for  $\frac{\partial T}{\partial b}$  and  $\frac{\partial \Pi}{\partial b}$  for changes in weekly benefit amounts. Equations (6a) and (6b) are not identical for all individuals and will, in fact, vary with the initial levels of both  $D$  and  $b$  and other  $x_i$  characteristics. This is an important advantage of the present approach, implied by treating unemployment as a stochastic process. The more usual practice of assuming that UI variables affect unemployment linearly and additively is a misspecification. Accordingly, the stochastic process approach should yield a richer and more reliable set of results.

The assumption that  $g(t/x_i)$  can be approximated by an exponential distribution is restrictive. It implies that  $\theta(t/x_i)$  is the same at all  $t$ , which is equivalent to assuming that search strategies do not vary with the length of search. Unfortunately, there does not yet exist a satisfactory set of econometric techniques for relaxing this assumption, although the exponential distribution is an improvement over assuming that unemployment is normally distributed.

How to give unemployment outcomes an even more accurate characterization is an issue of deep concern

for recent econometric research. Heckman and Borjas discuss these developments at length.<sup>11</sup> Lancaster shows that fitting an exponential distribution is quite unlikely to affect estimates of how changes in the  $x_i$  influence the mean of the distributions of unemployment.<sup>12</sup> The same cannot be said, however, of estimates of how changes in the  $x_i$  affect other characteristics, such as the compactness of the distribution. The net result is that our estimating techniques are likely to provide accurate estimates of how UI payments affect average length of unemployment  $\bar{T}$ . Our estimates of their effects on exhaustion rates  $\Pi$  are somewhat shakier and open to a margin of error that is indeterminate in the current state of econometric research.

## Results: $\beta$ Coefficients

The  $\beta$  coefficients in equation (1) were estimated separately for men, women, and both sexes combined. Tables 3 and 4 list the  $X$  variables and their respective sample means for each group. The variables in Table 3 are characteristics such as age, sex, and family size, or are measures of income or work experience in the preceding year. Table 4 lists the additional  $X$  variables describing UI payment rules.

Weekly benefit amounts, or WBA, are determined according to State schedules. Each schedule has an upper limit (MAXWBA), varying from State to State. Many States mandate minimum weekly benefit amounts (MINWBA) that replace a larger fraction of the wage loss of the unemployed who just qualify for benefits than for other claimants. The  $\beta$  coefficients for UI variables are estimated separately for these different qualifying levels. Weekly benefit variables are set respectively equal to MAXWBA, MINWBA, or before-tax wage replacement ratios (WRP) for beneficiaries receiving maximum, minimum, or benefits in between. Potential duration is broken down into the maximum benefit periods under regular State programs (the RPD or regular potential duration variables), and the maximum periods for which supplementary benefits could be paid (the XPD or extended potential duration variables), when applicable. Influences of the RPD and XPD variables are estimated separately for claimants at each of the three qualifying levels.

There is often a strong correlation between the UI variables and other personal attributes. Unless one controls for qualifying level, the WRP varies inversely with a claimant's previous earnings. Potential duration in the variable States varies directly, in turn, with the length of past employment. Our three-tiered approach differs from the treatment of UI variables in other studies and helps to distinguish between influences due to UI variables and unmeasured attributes connected with work experience.

TABLE 3. Control variables

Abbreviation	Definitions and units	All	Men	Women
<i>Characteristics while unemployed:</i>				
AGE	years	32.0	31.8	32.1
HSCHL	= 1, if high school graduate	.16	.58	.64
MARRIED	= 1, if married	.47	.45	.50
NONWH	= 1, if nonwhite	.15	.13	.17
MALE	= 1, if male	.51	1.0	0.
FAMSZ	family size	3.80	3.86	3.75
CHILDUN6	= 1, if woman with child under 6	—	0.	.24
CHILD617	= 1, if woman with child 6 to 17	—	0.	.40
FAMY-SINGM	other family income (\$), single men	—	7,349.0	0.
FAMY-MARM	other family income (\$), married men	—	2,734.0	0.
FAMY-SINGW	other family income (\$), single women	—	0.	5,088.0
FAMY-MARW	other family income (\$), married women	—	0.	6,738.1
AREAUNEMP	pct unemployed in sample area, by sex	14.0	13.4	14.7
Y68	= 1, if unemployed in 1968	.11	.11	.12
Y69	= 1, if unemployed in 1969	.09	.09	.09
Y70	= 1, if unemployed in 1970	.14	.15	.14
Y73	= 1, if unemployed in 1973	.08	.07	.08
Y75	= 1, if unemployed in 1975	.13	.13	.12
Y77	= 1, if unemployed in 1977	.31	.31	.31
VQ	= 1, if voluntary quit	.12	.11	.12
PARTTIMER	= 1, if usually part-time or part-year worker	.56	.44	.68
UN-LASTYR	= 1, if unemployed the year before	.37	.41	.32
WEEKS	weeks worked	24.6	29.0	20.2
WKWG	average weekly wage	107.7	154.3	59.50
POV	= 1, if total family income below poverty line	.11	.10	.13
SEAS	= 1, if mainly employed in farming, forestry, fisheries, or construction	.16	.26	.06

TABLE 4. UI variables: sample means

Abbreviation		All	Men	Women
ELIG	= 1, if receiving UI benefits	.61	.71	.50
ATMIN	= 1, if receiving minimum weekly benefit	.03	.02	.03
MINWBA	minimum weekly benefit, if ATMIN = 1 (\$)	20.44*	20.94*	20.50*
ATMAX	= 1, if receiving maximum weekly benefit	.20	.32	.08
MAXWBA	maximum weekly benefit, if ATMAX = 1 (\$)	80.86*	81.58*	77.77*
WBA	weekly benefit amount, if MINWBA < WBA < MAXWBA	47.52*	51.87*	43.27*
WRP	before-tax wage replacement ratio = WBA/WKWG	.49*	.45*	.54*
RPD	potential duration of benefits, regular state programs (weeks)	23.6*	24.1*	22.8*
RPD1	RPD, if ATMIN = 1 (weeks)	19.8*	18.5*	20.6*
RPD2	RPD, if MINWBA < WBA < MAXWBA (weeks)	23.6*	23.9*	23.2*
RPD3	RPD, if ATMAX = 1 (weeks)	24.1*	24.7*	21.6*
XELIG	= 1, if receiving extended benefits	.31*	.37*	.26*
XPD	potential duration of extended benefits (weeks)	18.8*	19.5*	17.9*
XPD1	XPD, if XELIG = ATMIN = 1 (weeks)	19.3*	17.9*	19.9*
XPD2	XPD, if XELIG = 1 and MINWBA < WBA < MAXWBA (weeks)	18.4*	18.9*	17.9*
XPD3	XPD, if XELIG = ATMAX = 1 (weeks)	19.7*	20.5*	16.3*

\* Means for applicable recipients of UI.

Table 5 describes the distributions of sample claimants living in uniform and variable States. Some 23 percent of covered workers were employed in uniform States in 1977. A similar proportion (24 percent) of our sample is drawn from the uniform States, including six of the eight that currently use uniform formulae. The samples of uniform claimants are, however, quite

thin, especially among women workers at the maximum and minimum points of the WBA schedules (see Table 5). Implications of this for our  $\beta$  estimates are noted below.

Table 6 lists maximum likelihood estimates of the coefficients for non-UI variables. These are the contributions of each variable to the probability of com-

TABLE 5. Variable vs. uniform States: sample sizes

Totals		Variable States	Uniform States
Men:			
MAXWBA	375	100	475
Min < WBA < Max	422	141	563
MINWBA	29	—	29
Ineligible for UI	324	110	434
Totals	1,150	351	1,501
Women:			
MAXWBA	90	21	111
Min < WBA < Max	434	142	576
MINWBA	45	—	45
Ineligible for UI	530	193	723
Totals	1,099	356	1,455
Total	2,249	707	2,956
Uniform States			
	Years		Sample Size
Connecticut	1977		22
Illinois	1975, 1977		81
Maryland	1968-70, 1973-75, 1977		52
New York	1968-70, 1973-75, 1977		350
North Carolina	1973		4
Pennsylvania	1973-75, 1977		181
West Virginia	1968-70, 1977		17

pleting an episode of unemployment at a specific moment of time, whether by reemployment or by withdrawing from the labor force. Negative values therefore imply the characteristic increases the probability of remaining unemployed. Table 6 variables are included primarily to control for extraneous influences and are not a central focus of the study.

### Using area unemployment

A point about the variables worth noting is that we have estimated local area unemployment rates (AREA UNEMP) as the percent of persons unemployed at any time during the reference year in either the sample standard metropolitan statistical area (SMSA), if identifiable, or State of residence. AREAUNEMP is a measure of the incidence of unemployment and is comparatively uncontaminated by changes in the probabilities of remaining unemployed—the variable to be studied. Area rates have been estimated by going back to the full census ADF files from which our subsample of cases was drawn. AREAUNEMP is therefore mainly representative of the specific geographical sampling clusters comprising the ADF and is probably a more accurate reflection of actual local labor market conditions for sample respondents than is available from published data.

Not surprisingly, AREAUNEMP coefficients are highly significant. Temporal dummies (Y68 to Y75) were added to compensate for the potential biases in merging cross-section and time-series measures of local labor market conditions. To find the effect of a 1 per-

cent *cyclical* increase in unemployment, one must add the value of the appropriate temporal dummy to the AREAUNEMP coefficient. The positive values of the temporal dummies indicate that short-term cyclical changes have a smaller adverse impact on the probabil-

TABLE 6.  $\beta$  estimates: control variables (asymptotic standard errors in parentheses)

Variable	All	Men	Women
AGE	-.0293* (.0100)	-.0620* (.0148)	-.0187 (.0150)
(AGE) <sup>2</sup>	.00033* (.00012)	.00067* (.00018)	.00023 (.00019)
HSCHL	.0235 (.0455)	.0975 (.0655)	-.0930 (.0665)
MARRIED	.1993* (.0637)	.2926* (.0981)	.0957 (.0904)
NONWH	-.1947* (.0622)	-.1179 (.0945)	-.2437* (.0849)
FAMSZ	.0040 (.0123)	.0061 (.0164)	-.0148 (.0201)
CHILDUN6	.2109* (.0837)	—	.2845* (.0956)
CHILD617	.1082 (.0739)	—	.1262 (.0834)
FAMY-SINGM	.0189* (.0035)	.0181* (.0040)	—
FAMY-MARM	.0080 (.0077)	.0046 (.0082)	—
FAMY-SINGW	.0095* (.0040)	—	.0100* (.0046)
FAMY-MARW	-.0017 (.0048)	—	.0023 (.0054)
AREAUNEMP	-.0350* (.0062)	-.0360* (.0089)	-.0386* (.0089)
Y68	.4842* (.0196)	.5996* (.1348)	.3064* (.1270)
Y69	.4028* (.0439)	.5994* (.1365)	.1863 (.1338)
Y70	.2293* (.0854)	.3806* (.1248)	.0522 (.1194)
Y73	.3127* (.0957)	.3858* (.1408)	.1816 (.1320)
Y75	.3094* (.1090)	.4777* (.1659)	.1464 (.1455)
Y77	.3910* (.0757)	.6136* (.1110)	.1754 (.1035)
SEX	-.2606* (.0792)	—	—
VQ	-.0940 (.0650)	-.0699 (.0935)	-.0939 (.0934)
PARTTIMER	.2804* (.0673)	.2877* (.0981)	.3232* (.0984)
UN-LASTYR	-.2462* (.0510)	-.2237* (.0747)	-.2072* (.0721)
WEEKS	.0042 (.0025)	.0122* (.0039)	-.00078 (.00340)
WKWG	-.0044 (.0077)	.0019 (.0053)	-.0767* (.0364)
POV	.1086 (.0741)	.0924 (.1148)	.0877 (.1027)
SEAS	.0375 (.0640)	.0534 (.0757)	-.0476* (.0231)
CONSTANT	-1.8266	-1.9326	-1.6160
LOG LIKELIHOOD	-6280.6	-3056.5	-3193.1

\* Significant (two-tail) at .05 or less.

ity of remaining unemployed than a longer-lasting cross-sectional difference. Mincer has noted a similar phenomenon in his study of cyclical changes in labor supply.<sup>13</sup>

FAMY (for family) variables control for income other than the claimant's own earnings and UI benefits. Such supplemental income appears to reduce the probability of remaining unemployed, contrary to labor supply theories. It appears therefore as though this variable acts as a proxy for unobservables that are associated both with more favorable opportunities for jobs and higher incomes.

We leave the interpretation of the rest of the coefficients in Table 6 to the reader and turn to Table 7, which presents estimates of the coefficients for the UI payment variables.

Looking at the WBA coefficients as a group, we find an inverse relationship with recent past attachments to the labor force. Higher benefits are more likely to increase the unemployment of workers who are marginally attached to the labor force than of those who are regular workers. A higher WBA increases the unemployment of persons who barely qualify for UI. This is the strongest of the coefficients and consistent for both sexes, although the sample at this level is small (see Table 5). At the other end of the benefit schedule, the coefficient of MAXWBA is opposite in sign and not significant statistically. In between the maximums and minimums, an increase in the WBA is more likely to increase the unemployment of women than of men. The coefficient for men is not significant, and the sampling error for women is greater than for MINWBA.

The  $\beta$  coefficient for the potential duration variables

TABLE 7.  $\beta$  estimates: UI variables  
(asymptotic standard errors in parentheses)

Variable	All	Men	Women
MINWBA	-.0354* (.0131)	-.0379* (.0189)	-.0370* (.0184)
WRP	-.3357 (.3027)	-.1390 (.4536)	-.7094* (.4320)
MAXWBA	.0036 (.0025)	.0033 (.0030)	.0071 (.0048)
RPDI	.0034 (.0144)	-.0030 (.0191)	.00051 (.02144)
RPD2	-.0085 (.0062)	-.0179* (.0089)	-.0010 (.0087)
RPD3	-.0257* (.0081)	-.0267* (.0111)	-.0431* (.0134)
XPD1	.0026 (.0111)	-.0118 (.0238)	.0119 (.0140)
XPD2	-.0181* (.0036)	-.0112* (.0053)	-.0105* (.0051)
XPD3	-.0092* (.0051)	-.0137* (.0063)	-.00051 (.01200)
ELIG	.3009* (.1782)	.3849 (.2514)	.4509* (.2744)

\* Significant (one-tail) at .05 or less.

present a more complex pattern. The samples of male and female MINWBA and female MAXWBA claimants from uniform States are thin to nonexistent (recall Table 5). This reduces the policy variation of the potential duration variable and weakens the estimates of the male-female RPD1-XPD1 and female RPD3-XPD3 coefficients. Although four out of six of these have the expected sign, only one is statistically significant. We therefore discount these results.

The remaining coefficients, applicable to 10 percent of the sample claimants, indicate an approximately linear relationship for men and a nonlinear relationship for women. Both are significantly more likely to have remained unemployed as potential duration is increased, but the longer women are entitled to draw benefits in the first place, the stronger the influence is for them.<sup>14</sup>

When the responses are broken down by type of program, as in Table 7, it can be seen that differences in potential duration under regular State programs do not contribute significantly to female unemployment, whereas changes in the potential duration of supplemental benefits affect both men and women (between the minimum and maximum benefit amounts) about equally. Men respond to longer benefits from either of the two programs in about the same way; at least the estimated differences are not statistically significant.

Altogether, it can be shown that these estimates imply that an additional week of benefits under regular State programs increases claimed unemployment by .23 weeks, and increases it .17 weeks under the supplemental benefits programs, averaged over both sexes. (Estimates of net influences are the mean of the individually projected, case-by-case responses to a change in the policy variable.) This puts our estimate, on either basis, somewhere about the midpoint of the range of one-tenth to four-tenths of a week found in earlier studies.

These estimates of the net potential duration influences are in fundamentally closer agreement with the results of earlier studies than are the net WBA effects implied by our  $\beta$  coefficients. Our net projected WBA effect is weaker—close to zero in fact—than the consensus estimate of earlier studies such as Hamermesh which showed that a one-tenth increase in the UI wage replacement ratio causes claimants to remain unemployed for about one-half week longer on average.<sup>15</sup> We do not place very much confidence in this net estimate because it is heavily dominated by the projections for MAXWBA claimants, which have statistically insignificant  $\beta$  coefficients and which predict that an increase in the maximum WBA's encourages *shorter* unemployment. If our other estimates are correct, however, there is a substantial variation in the WBA influences, depending on sex and qualifying levels. The  $\beta$  estimates imply an increase of a week or more in the unemploy-

ment of MINWBA beneficiaries of both sexes and women particularly, when the wage replacement ratio is increased by .1. The net effects for men are weaker—an increase of about two-tenths of a week for those with benefits between the maximums and minimums, for example.

### Reconciling different results

It would help in evaluating the reliability of our findings to know more about why they differed from those of earlier work. It could be due to weaknesses in our data—the potential biases of the ADF matched sample, or errors of measurement in our indirect imputations of UI benefits, for example. It could also be due to differences in estimating techniques.

To find out more about this, we replicated the basic methods of earlier studies with our data in an effort to control for the main differences in estimating techniques.

More specifically, a standard ordinary least squares (OLS) regression was estimated, treating average weeks of unemployment (determined from the mid-points of CPS interval reports of unemployment) as the dependent variable and using our control variables—the wage replacement ratio and the potential duration of benefits—as independent variables. To compare our study with earlier studies, we measured the influence of the wage replacement ratio by means of a single coefficient, i.e., without regard for qualifying levels. The potential duration variable was set equal to the sum of regular plus supplemental benefits, again without regard for qualifying levels.

The estimated mean response to an additional week of potential duration is .17 weeks or close to the average of responses to the regular and supplemental programs that we inferred from the  $\beta$  coefficients. The estimated response to a one-tenth increase in the wage replacement ratio is two-thirds of a week additional unemployment for men and .46 weeks for women, contrary to our maximum likelihood estimates which show a stronger effect for women than for men. When these estimates are averaged over both sexes, the combined WBA effect is .58 weeks, or virtually the same as the consensus estimate. This suggests that the differences between our findings and those of earlier studies may be due primarily to the differences in estimating techniques.

Measurement errors in our imputations of UI benefits may be thought to bias the estimated regression coefficients to zero, but Garber and Klepper show that OLS coefficient estimates are not necessarily biased downward if more than one of the regressors is subject to measurement error.<sup>16</sup> Much less is known about the consequences of measurement error for the maximum likelihood estimates of the  $\beta$  coefficients.

## Policy Simulations

In this section, we simulate the outcomes of changes in UI payment policies implied by the estimated  $\beta$  coefficients. To exploit the information they provide about individual differences, the simulations are based on the changes expected under alternative rules, case by sample case, and then aggregated.

Table 8 illustrates the implications if the variable States were to set their benefit periods at 26 weeks for all, as in most uniform States. An increase in unemployment of about one-half week is projected, averaged over both sexes. The increase might have been larger except for the fact that most men who are eligible for benefits in the variable States are already entitled to almost 26 weeks; women, who would receive the bulk of the additional weeks, respond less to additional weeks of *regular* benefits than men do, according to our estimates.

Probabilities of exhausting benefits are projected to drop by about 5 points in the shift to uniform plans. Exhaustion rates are generally more elastic and fall more sharply than average weeks of unemployment increase. The disparity is greater for women than for men. This should be interpreted conservatively since the responses of men and women to UI variables become more nearly alike as potential duration is increased. Nonetheless, even on the limiting assumption that the responses of men and women are the same, exhaustion rates remain notably more elastic.

The exhaustion rates in this study are averages of individual expectations as defined by equation (3). They therefore differ from the official published exhaustion rates, which suffer from a number of aggregation biases. Sperber, for example, has described the difficulties of interpreting this data.<sup>17</sup>

TABLE 8. Policy simulation: potential duration in variable States set uniformly at 26 weeks

	Before	After	Change	Pct change
Average weeks of unemployment:				
Men	17.61	18.23	+.62	+3.5
Woman	14.51	14.88	+.37	+2.5
Both sexes	16.34	16.86	+.52	+3.1
Mean probability of exhausting regular benefits:				
Men	.258	.223	-.035	-14.6
Women	.228	.166	-.062	-31.5
Both sexes	.246	.200	-.046	-20.6
Mean potential duration of regular benefits:				
Men	23.41	26.00	+2.59	+10.5
Women	21.77	26.00	+4.23	+17.7
Both sexes	22.74	26.00	+3.26	+13.4

TABLE 9. Policy simulation: no provisional benefits in 1975

	Before	After	Change	Pct change
Average weeks of unemployment:				
Men	19.26	12.93	-6.33	-39.3
Women	18.16	13.42	-4.74	-30.0
Both sexes	18.86	13.11	-5.75	-36.0
Mean probability of exhausting benefits:				
Men	.057	.161	+.104	+95.4
Women	.060	.189	+.129	+103.6
Both sexes	.058	.171	+.113	+98.7
Potential duration:				
Men	60.81	24.35	-36.46	-85.6
Women	57.79	23.12	-34.67	-85.7
Both sexes	59.70	23.90	-35.80	-85.6

In spite of the dissimilarities, the simulated exhaustion rates are quite close to the officially estimated rates.<sup>18</sup> Our rates are conceptually clearer, however, and more appropriate for most purposes. Their main drawback may be our underlying assumption that durations of unemployment are exponentially distributed.

For a closer impression of the implications of provisional benefits during the last previous recession, we simulated average weeks of unemployment and exhaustion rates for 1975, the year with the highest unemployment rate, with the results shown in Table 9. The simulations are restricted to the sample observations for 1975 to control for extraneous changes in the characteristics of the unemployed as aggregate activity fluctuates. Supplementary benefits are defined to include the combined effects of the additional compensation that became available under both EB and FSB programs to claimants exhausting regular benefits.

The simulations indicate that the combination of supplementary programs added 5.75 weeks to the mean unemployment of UI claimants. The findings about exhaustion rates are complex and had to be elucidated by further simulations, but it can be seen here that the net effect was to reduce exhaustions to quite low levels. Qualitatively, increases in potential duration appear to have similar effects, including the greater elasticity of exhaustion rates, whether the additional benefits are offered through regular or provisional programs. The chief differences between the results of Tables 8 and 9 are due to the sizes of the policy changes simulated.

#### Estimates of unemployment inflation by supplemental benefits

Criticisms that the combined EB and FSB programs significantly inflated unemployment rates in the 1974-75 recession appear to be valid. If one imputes the estimated 5.75 weeks of unemployment added by the combined programs to the 11.2 million receiving first

UI payments in 1975, total unemployment would have been increased by 15 percent on this account. Overall, the average unemployment rate for 1975 would have been 7.2 versus 8.5 percent without both EB and FSB payments. Basing the projection on first payments in 1975 probably results in a conservative assessment of the true effect. Both FSB's and EB's contributed to the unemployment of claimants who received first payments in 1974 and who continued to be unemployed in 1975. Their weeks ought to be included in the projection, and the weeks of their counterparts who received first payments in 1975 and remained unemployed into 1976 ought not to be counted. The net balance underestimates the additional weeks of unemployment attributable to supplemental benefits in 1975, because, overall, the number out of work was falling over this period.

Our sample in fact indicates that supplemental benefits accounted for a larger fraction of 1975 unemployment than 15 percent, but this seems attributable to its lack of representation of persons who moved. Movers include a disproportionate number of younger workers who are ineligible for UI and whose unemployment rises at a faster rate during recessions. If they had been included, the sample share of unemployment attributable to supplemental benefits would fall.

The most appropriate criteria for evaluating the provisional benefit programs are open to debate. Hight, as well as Corson and Nicholson, point out that the Congress apparently intended supplementary benefits to maintain exhaustion rates at prerecession levels.<sup>19 20</sup> This objective stresses the contributions of UI to income stabilization. An alternative approach, which places greater emphasis on UI as insurance against earning loss, would view supplemental benefits as compensation for the increased difficulty of finding work during recessions. According to this, the standard for increasing benefit weeks ought to be more closely related to labor market conditions and the changes in the time it takes to find suitable work because of variations in the vacancy-unemployment ratio.

To bring out the differences between these two approaches, we have simulated the 1975 outcomes under alternative ways of supplementing benefits, with the results summarized in Table 10. In this table, formula A illustrates a predominately insurance-type approach. Under it, benefits are increased with a view to compensating individuals for purely cyclical increases in expected lengths of unemployment.

Purely cyclical increases are estimated by comparing the mean lengths of unemployment implied when AREAUNEMP is equal to actual 1975 levels and when it is set equal to its full-employment levels. Full employment levels are estimated by the sample averages for 1968-70, and the sample is restricted to the 15 States with sufficient data for the necessary averaging. The expected lengths of unemployment are estimated,

TABLE 10. Policy simulations: comparative provisional benefit formulae for 1975 <sup>1</sup>

	Both sexes	Men	Women
<i>Avg. weeks of unemployment</i>			
With no provisional benefits:			
At 1975 unemployment rates	13.19	12.83	13.85
At full employment	9.16	8.80	9.83
With provisional benefits:			
Actual	19.02	19.17	18.74
Formula A	13.83	13.50	14.44
Formula B	14.95	14.72	15.36
<i>Mean probability of exhausting regular benefits:</i>			
Actual	.278	.276	.283
With no provisional benefits:			
At 1975 unemployment rates	.173	.159	.197
At full employment	.093	.080	.117
<i>Mean probability of exhausting total benefits:</i>			
Actual	.060	.057	.066
Formula A	.139	.128	.159
Formula B	.093	.080	.117
<i>Avg. weeks of provisional benefits:</i>			
Actual	35.84	36.45	34.72
Formula A	4.03	4.04	4.02
Formula B	11.04	11.66	9.90

<sup>1</sup> California, Connecticut, Florida, Georgia, Indiana, Illinois, Louisiana, Maryland, Massachusetts, Michigan, New Jersey, New York, Ohio, Pennsylvania, Texas.

on either basis, under the assumption that there are no supplemental benefits. By this means, we abstract from potential feedbacks between supplemental benefits and unemployment levels. The purely cyclical increases in unemployment assume there are no such feedback effects. Recall that AREAUNEMP measures the incidence of unemployment. Strictly speaking, this procedure abstracts from feedback effects on the *length* of unemployment except as these are (negligibly) related to feedbacks between supplementary benefits and the *incidence* of unemployment.

Formula B illustrates a more predominately income-stabilization approach. Formula B simulations provide provisional benefits with a view to maintaining exhaustion rates at prerecession (average 1968–70) levels given actual unemployment in 1975.

Regular State programs provided an average of 24 weeks of benefits in the sample States. Sample claimants would therefore have been eligible for one extension of 12 weeks under EB's and another one averaging 24 weeks under FSB's. Under plan A, the extensions would have averaged only about 4 weeks, which is equal to the projected purely cyclical increase in mean length of unemployment. Under formula B, the mean benefit extension is projected at 11 weeks, or close to what would have been available to UI beneficiaries under EB's alone.

The difference between the formula B versus the EB–FSB extensions implies that benefits were extended for a longer period than would have been necessary to have kept exhaustion rates from rising. It appears therefore as if the supplemental benefits available under the EB program alone would have been sufficient to accomplish this objective. Our findings on this point are in agreement with Corson and Nicholson, who came to a similar conclusion based on the estimates from earlier potential duration studies.<sup>21</sup>

Plan A would have lengthened the unemployment of UI beneficiaries by about six-tenths of a week and added two-tenths of a point to the 1975 unemployment rate. This contrasts with the 1.3 points we estimate to have been added by the EB plus FSB extensions. The rates at which total benefits were exhausted would also have increased by about 50 percent under plan A.

Under plan B, UI claimant unemployment would have increased by about 1.8 weeks, adding four-tenths of a point to the national annual unemployment rate, while exhaustion rates remained unchanged. If one equates the plan B results with what one might have roughly expected from the EB supplements alone, the FSB program succeeded in pushing exhaustion rates down to about two-thirds of their prerecession levels at the cost of adding nine-tenths of a point to the overall unemployment rate. This implies that FSB's added 4 weeks to the unemployment of UI claimants, on average. Corson and Nicholson put the figure at 2.5 weeks,<sup>22</sup> based on the Moffitt and Nicholson estimates,<sup>23</sup> which are a lower bound. Their estimate that FSB added six-tenths of a point to the national unemployment rate was intended only as a lower bound to the probable effect.

The formula A and B approaches by no means exhaust the alternatives, but they probably depict the range of potential outcomes reasonably well. Corson and Nicholson have proposed that supplemental benefits be extended with a view to keeping earnings-replacement ratios (total benefits received divided by losses of earnings while unemployed) constant at prerecession levels.<sup>24</sup> Their methods, which are quite different from ours, indicate similar outcomes regardless of whether the objective is to maintain the earnings-replacement ratios or to keep exhaustion ratios (that is, formula B) the same. It can in fact be shown that if durations of unemployment are exponentially distributed, the two objectives are precisely the same.

## Conclusions

The estimates discussed in this report contribute to a firmer understanding of how the UI system has worked in the past. Refinements in data and estimating techniques have solidified the evidence on at least a few key issues. There appears now to be little question that

an increase in the potential duration of benefits raises the likelihood of beneficiaries of UI remaining unemployed for a longer time. As a result, supplementation of regular benefits played an important role in the 1974-75 recession, driving exhaustion rates down to below their prerecession levels while inflating the overall rate of unemployment at the same time.

The desirability of these outcomes is a matter for debate and entails considerations that are outside the scope of this report. Nonetheless, they do seem to imply criticisms of past policies and support potential avenues for change.

First, it seems doubtful that the Congress could have known at the time that the FSB program was enacted that the benefits extended would have increased unemployment as sharply as our findings indicate. UI payments were substituted for alternative monetary and fiscal policies to a greater extent than usual in 1974-75. In retrospect, this seems to have been ill-advised and other income-stabilization policies might have been more appropriate. The Congress may well have been aware that current income maintenance programs were inadequate to the needs of exhaustees whose incomes fall below the poverty standard (see Corson and Nicholson, for example<sup>25</sup>). The UI mechanism, however, is too broadly based a system for plugging a gap of this kind, and the FSB program was an inefficient choice if that was its main intent. Redesign of current welfare programs so that they are a better backstop for UI is a more desirable way of preparing to meet this problem in the future.

Second, our findings imply that the EB program worked reasonably well in the 1974-75 recession and might have been perfectly adequate if the goal had been to keep exhaustion rates at their prerecession levels. Unfortunately, there is no clear policy that states the objectives of supplemental benefit programs. Insurance goals and income-maintenance goals tend to compete, with the former resulting in lower unemployment overall but higher exhaustion rates than the latter. A more explicit choice between these alternatives would help greatly in the design of a more effective system.

Whatever the goal, a more adaptive countercyclical flow of UI payments would be desirable. If a stable exhaustion rate is the objective, there is no assurance that the EB-type extensions will be optimal for the next recession. Our estimates imply that each percentage point increase in the insured unemployment rate requires UI benefits to be extended by 3.3 weeks to keep exhaustion rates from rising. Given the agreement between this estimate and the findings of others, a smoother trigger mechanism under which benefits are supplemented in less discrete steps would be appropriate now and for as long as necessary to keep pace with rising unemployment rates. Such a system might alleviate the necessity for ad hoc congressional interventions like the FSB program.

To our regret, we can say much less about potential improvements in the regular State benefits because we were less successful in identifying implications of the complex differences in State payment rules. Our findings indicate that the fear that uniform plans encourage longer unemployment by their more liberal treatment of part-year and part-time workers may be exaggerated, inasmuch as women, who make up the bulk of such workers, appear to be less affected by differences in the potential duration of regular benefits. We are less confident of this, however, than of some of our other findings. Further research into the differences between the responses of men and women claimants seems therefore to be a prerequisite to a better understanding of this issue.

The variation in the relationships between unemployment and weekly benefit amounts that we found to depend on qualifying levels may have significant implications for some States. It appears that claimants who barely qualify for benefits are the most likely to remain unemployed when weekly benefits are increased. Therefore, States with particularly liberal minimum benefit levels probably ought to toughen their eligibility standards.

Our efforts to determine whether the influences of potential duration are also related to qualifying levels were unsuccessful. This remains an important area for research.

Finally, the questions that remain serve as a reminder of the need for improvements in the data available for UI research. Fortunately, a number of States are taking the first steps toward substantial refinements via their Continuous Wage and Benefit History programs. This promises to be an expensive undertaking whose fruits may not be harvested for some time. Their efforts merit patience and continuing support if the requisite data improvements are to be developed.

## Notes

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2. G. Solon, "Labor Supply Effects of Extended Unemployment Benefits," *Journal of Human Resources*, XIV, Spring 1979.
3. R. Moffitt and W. Nicholson, "The Effect of Unemployment Insurance on Unemployment: The Case of Federal Supplemental Benefits," *Econometric Society Meetings*, Winter 1979.
4. W. Nicholson and W. Corson, *The Effect of State Laws and Economic Factors on Exhaustion Rates for Regular UI Benefits: A Statistical Model* (Employment and Training Administration, 1978).
5. J. Hight, "Insured Unemployment Rates, Ex-

tended Benefits, and Unemployment Insurance Exhaustions," *Proceedings of the 1975 Winter Meetings* (Industrial Relations Research Association, 1976).

6. K. Classen, *The Current Population Survey and Unemployment Insurance Research* (Arlington: Public Research Institute, January 1976).

7. M. Feldstein, "The Effect of Unemployment Insurance on Temporary Layoff Unemployment," *American Economic Review*, LXIII, December 1978.

8. F. Horvath, "Tracking Individual Earnings Mobility With the Current Population Survey," *Monthly Labor Review*, May 1980.

9. Before 1976, census disclosure rules dictated the sample areas large enough to be separately identified. Before 1973, 18 states and the 19 largest Standard Metropolitan Statistical Areas (SMSA's) could be separately identified. Between 1973 and 1975, the identifiable States were reduced to 12 but the list of SMSA's was expanded to include the 34 with 1970 populations of a million or more. Beginning with 1976 the CPS sample size was again increased, and all States now can be separately identified. For comparability, our subsamples for 1976-78 were limited to the geographic areas that could be separately identified in the earlier years.

Our techniques tend to overrepresent urban areas because, for example, only residents of the principal SMSA within some States (only Detroit residents in Michigan, for example) can be separately identified in the earlier years. Where this has the potential for biasing our results, as in comparing the influence of local labor market conditions, we introduce SMSA-specific control variables.

10. T. Lancaster and S. Nickell, "Analysis of Re-employment Probabilities of the Unemployed," *Journal of Royal Statistical Society*, 1980.

11. J. Heckman and G. Borjas, "Does Unemployment Cause Future Unemployment? Definitions, Questions, and Answers From a Continuous Time Model of Heterogeneity and State Dependence," *Econometric Society Meetings*, Summer 1979.

12. Lancaster and Nickell, "Re-employment Probabilities."

13. J. Mincer, "Labor Force Participation and Unemployment: A Review of Recent Evidence," in *Prosperity and Unemployment*, eds. R. Gordon and M. Gordon (New York, Wiley, 1968).

14. In other estimates, we find that the probability of remaining unemployed is

$$.0210D - .00037D^2 + \dots$$

$$(.0127) \quad (.00017)$$

for women receiving benefits in between the maximum and minimum, when the potential duration of benefits ( $D$ ) under regular and supplemental benefit programs is combined. Newton and Rosen found similar non-linear relationships for both sexes. We discuss the

Table 7 results in the text because they are more convenient for the policy simulations.

15. D. Hamermesh, *Jobless Pay and the Economy* (Baltimore, Johns Hopkins University, 1977).

16. S. Garber and S. Klepper, "Extending the Classical Normal Errors-in-Variables Model," *Econometrica*, in press.

17. C. Sperber, "An Evaluation of Current and Alternative Methods of Determining Exhaustion Rations," *Unemployment Insurance Occasional Paper 79-4* (Unemployment Insurance Service, 1979).

18. A simple regression comparing the simulated exhaustion rates ( $R_1$ ) with the 3rd quarter official estimates for the sample years ( $R_2$ ) yields:

$$R_1 = .017 + 1.049 R_2 \quad R_2 = .64$$

$$(.074) \quad (.349)$$

This indicates that  $R_1$  may increase somewhat more sharply than  $R_2$  during recessions. Third quarter rates are the closest approximation for our sample because the official estimates are predicated on the assumption of a uniform potential duration of 26 weeks. It should also be noted that the official figures relate only to exhaustions of regular benefits, as ours do in Table 8. Further simulations, to be described, project the rates of exhausting total benefits, for which there are no official estimates.

19. Hight, "Insured Unemployment Rates."

20. W. Corson and W. Nicholson, "Extending Unemployment Insurance Benefits During Recessions: Lessons from the FSB Experience," *Policy Analysis Paper 21* (Mathematica Policy Research, May 1980).

21. Ibid.

22. Ibid.

23. Moffitt and Nicholson, "The Effect of Unemployment Insurance."

24. Corson and Nicholson, "Extending Unemployment."

25. Ibid.

## Appendix A: Further Description of Benefit Imputations

Each State has an eligibility requirement based on either minimum number of weeks of employment, or minimum base period earnings. In some States, the minimum amount of base-period earnings is a multiple of the weekly benefit amount; in others, a multiple of high-quarter earnings; and in others, a flat amount. Our data do not identify high-quarter earnings. Therefore, the eligibility check in our computer code is limited to annual earnings and weeks worked. We substitute average quarterly earnings for earnings in the peak quarter. This approximation tends to underestimate those eligible to receive benefits in the high-quarter

States; it also underestimates the potential benefits of eligible claimants.

The following regressions indicate that the resulting biases are negligible ( $b_I$  = average of imputations,  $b_p$  = published State average).

Annual-Average States:

$$b_I = .850 + 1.043 b_p \quad R^2 = .943$$

(2.029) (.036)

High-Quarter States:

$$b_I = 2.684 + 1.011 b_p \quad R^2 = .905$$

(1.888) (.033)

In the first set of States, benefit determinations are based on annual averages of earnings in the base period. It can be seen that there are only minor differences in the relationships between  $b_I$  and  $b_p$  in either set of States. The intercept of the imputations tends to be somewhat greater for the high-quarter States because we may not have identified claimants with generally lower wages who were eligible based on their quarterly earnings, but the intercepts in either equation are not significantly greater than zero. Many analyses reported in the main body of the paper were replicated separately for the annual-average and high-quarter States with no substantive differences in the results.

Once an individual's eligibility is determined, the computer program calculates a weekly benefit amount. The weekly benefit amount due an eligible recipient is determined either by a legislatively mandated schedule (as in Michigan) or by a constant fraction, either of the average weekly wage or of high-quarter earnings. These formulae change from year to year and such changes are reflected in our code. The weekly benefit amounts are subject to an upper limit, which varies from State to State and from year to year. Our code tests to see whether the imputed weekly benefit amount exceeds the relevant upper bound, MAXWBA. If so, the weekly benefit amount is set equal to the statutory

maximum. Our analogous procedure determines the lower bound benefit, MINWBA, in the applicable States.

The program also determines appropriate dependents' allowances where applicable. It cannot calculate partial benefits, nor can it identify claimants who were disqualified to receive benefits, except because of voluntary quits, from the data available in the CPS. In Wisconsin and Georgia, it is possible for the weekly benefits to vary over the benefit year depending on the sources of a claimant's earnings in the base period, but this had to be ignored as well.

Before 1976, annual employment was reported by the CPS in class intervals, some of which are fairly broad. The estimates of average weekly earnings in the base period are derived by spotting each report of weeks worked at a point chosen at random within its class interval. As the reports available beginning in 1976 are in exact weeks, they provided an opportunity to test for possible biases in this procedure. Average weekly benefit amounts for the sample States turn out to be virtually identical whichever way they are calculated, whether by class intervals or by exact weeks.

The variable-formulae States determine total potential payments as a fraction of base-period incomes (e.g., Massachusetts) or weeks worked in the base period (e.g., New Jersey). Potential duration is either the corresponding multiple of the weekly benefit or the State maximum, whichever is smaller. In the former case, estimates of potential duration are therefore as accurate as estimates of the weekly benefit amount.

Since 1970, potential benefits from State programs have been augmented provisionally during recessions. These added benefits are triggered by national and/or State insured unemployment rates exceeding a target level which has varied with amendments or other laws since the 1970 Act. Our code recognizes these national and State specific triggers in computing total potential benefits. It also incorporates tests for the upper limits on the provisional benefits.

# Extending Benefits During Recessions: Lessons From the FSB Experience

Walter Corson  
Walter Nicholson

**D**uring every major recession since the late 1950's, the Congress has extended the eligibility duration for unemployment insurance (UI) benefits. Most recently, during the 1974–75 recession, the Federal Supplemental Benefits (FSB) program increased the maximum number of weeks of benefits from 39 to 65.

This report, which evaluates the overall performance of the FSB program and provides a general framework for the consideration of emergency extended benefits programs in the future, concludes that the desirability of such programs is questionable. On the one hand, emergency extensions satisfy a number of needs that existing policies are unable to meet. For example, they provide increased unemployment protection to workers, and temporarily maintain the income of those individuals who have exhausted their regular UI entitlements.

On the other hand, such extensions are inevitably costly because benefits are typically extended in all-inclusive “shotgun” fashion and may provide substantial work disincentives. It appears, then, that with the exception of severe recessions, emergency extensions of the FSB-type should be used only sparingly. Existing regular UI and benefits payable under the permanent extended benefits program should remain the primary means for meeting the needs of the unemployed.

This report is a summary of more extensive research on extended benefits programs. Some of the major themes, more fully detailed in this paper, are briefly summarized below. On the legislative history of benefits duration provisions, the following points are noted.

- The debate over the ideal duration of UI benefits is long-standing. Disagreement still exists over the trade-off between benefits and any work disincentives they may cause.
- There is general agreement that the distinction between an “earned right” to UI and an income maintenance rationale for benefits blurs as longer UI durations are considered.

- The provision of emergency extended benefits is increasingly regarded as one aspect of an overall Federal mandate to provide macroeconomic stability.

- Enactment of the permanent extended benefits (EB) program in 1970 marked the first time UI legislation provided an automatic activation of EB programs during recessions.

Among the important allocational aspects noted are:

- EB programs appear to contain inherent work disincentives. There is disagreement, however, over the measurement of those effects. Some estimates suggest that FSB added about 0.5 percent to the unemployment rate during the 1974–75 recession.

- The connection, if any, between EB's and recipients' job search behavior has not yet been well researched.

- EB programs may provide some degree of macroeconomic stabilization during recessions. However, evidence from the FSB program shows that such effects are minimal in relation to stabilization policy initiatives such as automatic and discretionary tax cuts. Evidence also indicates that extended UI benefits programs may, of necessity, lag in their impact on the economy.

Income distributional arguments considered include:

- The regular EB program may be sufficient to keep UI exhaustion rates from rising during mild recessions. It appears that during 1974–75 FSB reduced exhaustion rates below their prerecession levels.

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- To hold the earnings-replacement rate (total benefits divided by lost after-tax earnings) constant as unemployment rates fluctuate, UI durations should be extended by 5.1 weeks for each 1 percentage point increase in the insured unemployment rate. The regular EB program is sufficient to hold earnings replacement rates constant during mild recessions.

- Anti-poverty arguments for UI extensions assume that alternative income maintenance programs do not provide adequate support for UI exhaustees and that the need for income support by exhaustees is greater during recessionary periods. Evidence from the 1974–75 recession supports both assumptions, although the evidence concerning the second assumption is weak.

- The FSB program had a substantial anti-poverty effect but it was target inefficient because substantial benefits went to the nonpoor.

Various policy questions concerning UI extensions during future recessions are examined, including the following:

- It is argued that an FSB-type program is not needed during mild recessions; the EB program is sufficient to keep exhaustion rates from rising and earnings-replacement rates from falling during such times. Furthermore, the EB program provides breathing space between the start of a recession and the time when further extensions might be needed, which allows policy makers to assess the severity of a recession and, hence, the need for FSB.

- Insurance arguments for FSB suggest that potential durations should be increased about 3.5 to 5.1 weeks for every 1 percentage point rise in the insured unemployment rate above the levels necessitating the EB program. Income maintenance arguments for FSB weakly support a somewhat longer program.

- Few options help policy makers mitigate the disincentive effects of extensions. Eligibility restrictions related to past work effort would have almost no effect on recipient characteristics and post-UI labor market activities, but stiff job search and job acceptance requirements might have some effect.

- Several options allow policymakers to target benefits on the poor although some of them would be administratively difficult. Use of an income eligibility screen appears to be the easiest, most effective way to achieve this potential program goal.

- Analysis of the past FSB program provides little guidance for improving job search outcomes. The available employment and training services had few effects.

- Future FSB programs should be financed from general revenues, thereby treating FSB as a countercyclical program and emphasizing that national recessions are a Federal responsibility.

- A more generous welfare system would reduce the need for FSB as an anti-poverty tool. However,

an additional anti-poverty effect would be achieved with UI extensions.

- Other programs such as a countercyclical public service employment program for UI exhaustees would also mitigate the need for extensions. They would probably be only a partial substitute, however, if UI extensions were judged necessary.

## History of UI Duration Legislation

Legislators most often take a piecemeal approach to amending social policies, making numerous changes as experience increases. UI has been no exception, particularly in the duration of unemployment benefits. Since the beginning of the program, the extension of maximum duration of benefit payments has been sporadic, yet the process has gone on. First States took the lead, and then the Federal Government acted. Although the process has been uneven, several basic objectives have continued to concern legislators and to influence legislation.

### Early history

Early UI writings established three basic program objectives: employment stabilization for firms; insurance against personal income loss for individual workers; and aggregate income maintenance in the general economy.

The accomplishment of these objectives was severely limited by misconceptions about what a UI program should be. The program was designed to provide only a “front line of defense” for the ordinarily steadily employed.<sup>1</sup> This belief was emphasized by Arthur Altmeyer, then chairman of the Social Security Board.

The purpose of Unemployment Compensation is to provide some minimum protection when those persons who are ordinarily employed become unemployed. It is not relief nor is it intended to meet all unemployment under all conditions. The prime objective of Unemployment Compensation is to provide benefits to persons who become unemployed in normal times due to the ordinary changes in business conditions and also to provide the first line of defense during periods of unusual unemployment and severe business depression.<sup>2</sup>

Accordingly, the duration of benefits was strictly limited at the program's outset.

Unemployment Insurance cannot give complete and unlimited compensation to all who are unemployed. Any attempt to make it do so confuses Unemployment Insurance with relief, which it is designed to replace in large part. It can give compensation only for a limited period and for a percentage of the wage loss.<sup>3</sup>

It seems reasonable to ask why unemployed workers are not covered for the entire spell of unemploy-

ment, provided that they are actively looking for work and do not turn down any suitable job offers. Initially, there were two reasons for the limit on benefit duration. First was the fear of high costs to the system.

Coming to the concept of Unemployment Compensation, we regard it as merely a measure to give limited benefits to employees during a period while they have a reasonable opportunity to be taken back within a short time in their old positions. Unemployment Compensation, if it is not to be mere relief, must be based on the contributions that are received. Unless the contribution rates are extremely high, the period during which compensation can be paid will necessarily be quite limited. . . . Unemployment Compensation as we conceive it is something that the man should get in cash during such a period as can be paid for by the contributions.<sup>4</sup>

These fears were reinforced by overcautious actuarial estimates of the maximum number of benefit weeks that could be paid for a given contribution rate and waiting period. On the basis of the 1922–1933 statistics, the Committee estimated that a 3 percent contribution rate could finance only 8 weeks of benefits with a 2-week waiting period, and only 10 weeks of benefits with a 4-week waiting period. Using the 1922–1930 estimates for a 3 percent contribution rate, it estimated that 12 weeks of benefits could be paid within a 4-week waiting period.

The second reason for limiting the duration of benefits was fear that unemployment benefits posed “economic risks” to the community.<sup>5</sup> The payment of unemployment benefits allows beneficiaries to “hold out” for the type of employment to which they are accustomed and which is at a wage rate that they feel is reasonable (presumably equal or nearly equal to that of the previous job). Conceivably unemployment benefit payments could postpone what might be desirable economic readjustments for the community as a whole. On the other hand, it is undesirable for the community to force an unemployed worker to accept the first employment opportunity regardless of its nature. In this sense, it was said, a healthy economy requires having “the right man on the right job.”<sup>6</sup>

The maximum duration of benefits, then, involved a compromise between the interests of society as a whole and those of unemployed workers. Maximum duration provisions, it was argued, should only provide a reasonable period for an unemployed worker to locate suitable employment; extension of that period posed economic risks to the community that were too great. This concern was voiced in the first session of the 74th Congress (1935):

In normal times it (Unemployment Compensation) will enable most workers who lose their jobs to tide themselves over until they get back to their old work or find other employment without having to resort to relief. Even in depression it will cover a considerable part of all unemployment and will be all that many workers will

need. Unemployed workmen who cannot find other employment within a reasonable period will have to be cared for through work relief or other forms of assistance.<sup>7</sup>

### Evolution of duration provisions in the postwar period

These two considerations, of high costs and economic risks, together with the desire not to make UI a relief program, resulted in conservative duration maximums. By 1938, only six States provided a maximum benefit duration of more than 16 weeks. In addition, the precise duration for each individual worker was further restricted, in all States, except Ohio, through provisions limiting total benefits to a small fraction of earnings during a specified previous base period.

The conservative limits on duration maximums and the equally conservative limits on payment maximums meant that UI would cover only a small portion of the unemployed for relatively short periods. There was little consideration of EB's. During World War II and through most of the 1950's, economic activity was at a high level and UI claims were lower than anticipated. State UI funds rose, and it became clear that the earlier actuarial predictions had been far too cautious and that benefits could be paid for longer periods. As a result, many States began to liberalize their benefit duration provisions; the average period over which benefits could be received rose from 13–14 weeks in 1941 to 21 weeks by 1952. The increase in the maximum duration of benefits continued through the fifties in the “absence of any clear norms governing the process.”<sup>8</sup> By the late 1950's, most States had adopted a maximum duration of 26 weeks and several States had started to experiment with even longer durations.

Since the inception of the UI system there had been suggestions that the maximum duration of benefits should be extended during recessionary periods. It was not until the 1958 recession, however, that benefits beyond those called for under regular State programs were available. In that year, extended UI benefits were provided under the Temporary Unemployment Compensation Act (TUC) in States that chose to offer the program. These benefits were funded by repayable “advances” from the Federal UI trust funds, most of which were ultimately repaid by the participating States. The TUC program provided 1 additional week of benefits for every 2 weeks of an individual's original UI entitlement up to a maximum of 13 weeks of additional benefits. All future UI benefit extension programs have followed a similar formula by defining the number of weeks of EB's to be some fraction of an individual's regular UI entitlement. The variability present in States' regular UI duration provisions has been adopted into EB policy as well.

A second extended UI benefits emergency program was proposed by President Kennedy in the wake of

the steep economic downturn in early 1961. This program, formally established under the Temporary Extended Unemployment Compensation Act (TEUC), was broadly similar to the 1958 law. The major difference from the TUC was that the TEUC was funded through an increase in the Federal unemployment tax.<sup>9</sup> Benefit payments continued to be made through the State programs. State laws determined weekly benefit amounts and the eligibility and disqualification provisions. Involvement of the Federal Government in financing the TEUC program established the precedent of the Federal Government taking the initiative in extended unemployment benefits policy; since that time most such policy has originated at the Federal level.

### **Extended benefit policy in the 1970's**

Experiences with the emergency programs of the early 1960's led to the recognition of a need for a more automatic policy response to recessionary circumstances. Several abortive attempts were made to establish such a policy in the mid-1960's. It was not until 1970, with the passage of the Employment Security Amendments, that an automatic Federal and State program of EB's was established. Under this program, benefits financed on an equal-share basis by State and Federal governments could add an additional 13 weeks to regular UI during periods of high unemployment. Such "regular" EB's would be automatic whenever the Insured Unemployment Rate (IUR) averaged 4.5 percent nationally over a 13-week period. State enactment could occur when the local IUR equalled at least 4.0 percent and at least 120 percent of the average IUR in the corresponding period in the 2 previous years. Dissatisfaction with this trigger formula, particularly with the 120 percent provision, caused it to be modified several times. In some instances, including the beginning of the 1974-75 recession, the national EB program was activated by explicit congressional action.

There were two temporary emergency extensions of benefits beyond regular EB's during the 1970's. The first was enacted in 1971 as the Emergency Unemployment Compensation Act of that year. Under that program a maximum of 13 additional weeks of benefits was payable in States with very high unemployment rates. Originally scheduled to expire in September 1972, this Act was continued until March 30, 1973.

It is the second emergency extension of the 1970's, the Federal Supplemental Benefits (FSB) program, that provides the focus of this report. Originally enacted in December 1974 as part of the Emergency Unemployment Compensation Act of 1974, FSB provided for up to 13 additional weeks of benefits to individuals who had exhausted their EB entitlements.

As with EB, claimants' actual entitlement under FSB was set at one-half their regular UI entitlement. An additional tier of 13 weeks, or 50 percent of the regular UI entitlement, of FSB benefits was added in March of 1975. This increase entitled individuals to collect up to 65 total weeks of UI benefits—26 from the regular State UI program, 13 from the EB program and 26 from the FSB. With these provisions, FSB set a record for the longest duration of UI benefits in the history of the program.

Two further amendments to FSB had the effect of scaling back the program. PL 94-45 specified that as of January 1, 1976, the maximum duration available under FSB would be a function of the IUR in each State. Rates above 6 percent would be required in order to be eligible for the full 26 week FSB entitlement. FSB came to resemble the EB program in that it was triggered on and off in phases depending on a State's labor market conditions.

The final major amendments to FSB were enacted in April 1977 under PL 95-19. They had two important effects: they reduced the maximum FSB entitlement to 13 weeks in States that met certain trigger requirements; and they provided for the ultimate phase-out of the FSB program in early 1978. The amendments provided, for the first time, that uniform Federal eligibility and disqualification standards, rather than existing State standards, would apply to FSB recipients. These Federal standards were generally more stringent than many State standards and were enacted in part because of congressional desire to "tighten-up" on the FSB program. FSB denials increased sharply following implementation of the new standards.

Overall, the 1970's experienced major changes in extended UI benefits policy. The regular EB program became a permanent, automatic UI policy response to recessions, and a variety of emergency legislation was enacted. Before turning to a substantive examination of the most important piece of that emergency legislation, the FSB program, it may be helpful to provide a brief review of some legislative issues that have characterized virtually every debate over emergency benefit extensions.

### **Indicators for legislative initiatives— unemployment and exhaustion rates**

Legislative debates concerning emergency extensions of UI benefit durations regularly focus on two questions: indicators of the need for extended benefits, and the relationship between UI and welfare.

There is general agreement on the kinds of economic indicators that tend to signal the need for emergency action on EB's. Throughout the post-war period three macroeconomic variables have played an important role in influencing legislative decisions: the overall

unemployment rate, the mean (or median) duration of unemployment spells, and the exhaustion rate for regular UI. Table 1 shows that these three measures are closely related for the 1953–1978 period. The median duration of unemployment spells and the exhaustion rate for regular UI were used as dependent variables in simple regressions run with the overall unemployment rate as the sole explanatory variable. These simple regressions explained the data quite well—at least 85 percent of the variance of each “indicator” variable was explained by the single measure of labor market tightness. More specifically, the results show that each increase of 1 percentage point in the unemployment rate tends to correlate with an increase of nearly 1 week (0.93 week) in the length of the median unemployment spell. Since the national unemployment rate increases by 2 or 3 percentage points during a “typical” economic downturn, these results indicate that the median worker is unemployed about 2 or 3 weeks longer during such periods. The incidence of relatively long unemployment spells also increases commensurately. The second equation in Table 1 shows that higher unemployment rates are associated with higher rates of regular UI benefit exhaustion. On the average, each 1 percentage point rise in the unemployment rate tends to be associated with a 4.4 point increase in the exhaustion rate. Therefore, exhaustion rates for regular UI might rise by about 9 to 13 percentage points (say from 25 to 35+ percent) during a typical downturn. Each of these empirical regularities has been reflected in legislative debates.

The connection between rising unemployment and lengthening unemployment spells was clearly reflected by Secretary of Labor John T. Dunlop’s statement before the Senate Finance Committee in 1975:

I do think that it is appropriate that the duration should rise in times of very heavy unemployment. The reason for that principle, I think is this: the job search which takes place in a labor market may take a lot longer, and one may have to travel a lot further in times in which unemployment levels are appreciably higher. So, the notion of expanding the benefits, the duration of benefits,

with the level of unemployment is, on the whole, a sound principle.<sup>10</sup>

Concern over longer unemployment spells during periods of high unemployment leads naturally to the idea of exhaustion rates. If in times of high unemployment benefit duration should increase to provide “adequate” coverage as workers’ unemployment spells lengthen, the exhaustion rate then becomes a “test” by which to gauge the adequacy of benefit duration. In 1958, for example, President Eisenhower in a message to the Congress called for legislation extending benefits for those workers who had exhausted their regular benefits. In reference to the President’s remarks, Secretary of Labor James P. Mitchell stated in Senate hearings before the Finance Committee:

The President’s recommendation for this temporary legislation was based on the fact not only that unemployment increased sharply after the first of the year and rose to heights far above normal, but also that the rate at which unemployed workers were exhausting their unemployment insurance benefits and still remained unemployed was sharply increasing in many areas.<sup>11</sup>

The original concept of duration of benefits has generally been interpreted to mean “a duration sufficient to enable the majority or the ‘great majority’ of insured workers to find suitable work before exhausting their benefit rights.”<sup>12</sup> Although there has been little explicit agreement on the practical meaning of the “great majority” of workers, it is commonly agreed that total exhaustion rates of all UI benefits (including extensions) should not rise precipitously during recessions.

*UI and welfare.* Another recurrent difficulty in the legislative debate over extensions in UI duration is differentiating between an insurance and a welfare rationale for compensating individuals with very long unemployment spells. The link between the insurable risk of unemployment and the cause of continued unemployment blurs during longer spells of unemployment. Several observers have suggested that after workers exhaust a certain number of weeks of benefits they should no

TABLE 1. National duration and exhaustion equations, 1953–1978

Independent variable	Median duration of unemployment		Exhaustion rate	
	Coefficient	t-Statistic	Coefficient	t-Statistic
Unemployment rate (seasonally adjusted)	0.934	9.692	4.42	11.493
Constant	−0.060	−0.108	6.13	3.740
R <sup>2</sup>	.847		.922	
Standard error	0.697		.028	
F-Statistic	108.157		148.147	
Durbin-Watson Statistic	2.11		2.077	

longer be the responsibility of the UI system but should become the responsibility of the welfare system. In fact, in some European countries, welfare payments automatically become payable after exhaustion of relatively short spells of UI benefits. Recent proposals in this country have suggested similar arrangements or at least a more clearly defined working relationship between the two programs. Former Secretary of Labor Dunlop, in the same statement in which he advocated increasing benefit durations during the 1974–75 recession, also spoke of the need to limit the extensions:

I cannot tell you where my ideal limit is. I, myself, am concerned . . . about our system degenerating into what I call a public assistance program. . . . I do favor this extension at this time because we have not in this country placed into effect a comprehensive type of welfare program; [Another] solution to these two problems would say after a certain point a person who was unemployed—I do not care for the moment whether you say 52 weeks, 65 weeks, 78 weeks or some other number—ought to be treated financially not as part of the unemployment insurance system, financed in the way an unemployment insurance system is, but ought to be treated as a part of some welfare program.<sup>13</sup>

Dunlop went on to speak of the same “economic risks” that were responsible for the limits on the duration of benefits at the outset of the UI program. He noted that unemployment durations of 52 weeks or more may be due to some structural factor in the community and/or industry that would result in the permanent loss of some jobs. In such circumstances, direct income support may be more appropriate than continuing UI benefits.

The debate over the connection between UI extensions and welfare continues. Hasty emergency legislation serves only to obscure the essential issues.

## Conclusion

This brief history of the legislative debate over UI duration provisions clearly illustrates two points. First, the debate is long-standing. Many of the basic issues addressed in the formative stages of the UI system remain as controversial today. What the duration of regular UI should be and how that duration should be altered during recession is moot. Second, EB policy has become increasingly a Federal responsibility. As the Federal Government has taken a greater role in the maintenance of overall economic activity, it has also accepted responsibility for initiating compensation programs, such as UI extensions. This is reflected both in the permanent EB program that is automatically “triggered” during recessions and in the emergency programs that are increasingly financed and structured by Federal policy makers. This increased responsibility at the Federal level heightens the need to coordinate extended UI benefits policy with other Federal programs.

## Allocational Effects of FSB

### Microeconomic issues in UI benefit extensions

One way to analyze the allocational impact of UI benefit extensions is to consider UI as “insurance” which provides workers with protection in the event of layoff. Like any insurance policy, its protection is valuable because it reduces financial risks. In the absence of a government program it is probable that workers would seek such insurance protection for themselves.<sup>14</sup> Most insurance poses the problem of “moral hazard”—that is, being insured increases the probability of incurring the hurt insured against—here, unemployment. Because unemployment insurance reduces the cost of being unemployed, it encourages individuals to be more selective about the jobs they are willing to accept and prolongs their unemployment. What labor economists term “work disincentives” and what insurance economists term “moral hazard” amount to the same thing in the case of unemployment.

Present UI provisions, in particular partial wage replacement, limited benefits duration, the waiting week, and availability-for-work requirements, reflect society’s preference concerning the trade-off between earnings replacement and work disincentive. Each of these factors prevents the existing UI system from providing complete insurance to unemployed workers and can be viewed as an attempt to control “moral hazard.”

Recessions obviously increase the risk of unemployment. During these periods the probability of layoff is greater, as is the probable length of unemployment. The second factor provides the impetus for benefit extensions, since during a recession UI recipients are more likely to exhaust their benefit entitlements. In order to provide equal protection, then, in recessions, it would be necessary to increase potential benefits durations. If the work disincentives resulting from such extensions were small, policy makers might choose to provide nearly complete insurance compensation. But if such disincentives were substantial, a policy of less than complete compensation might be preferable.

A similar conclusion can be reached by means of job search theory. Payment of UI may be viewed as efficient because it permits workers to seek suitable jobs over longer periods of time. UI thereby improves the overall allocation of labor resources. On this reasoning the limit on benefits reflects society’s estimation of the point at which further gains from subsidizing job search cease. Because job offers become scarcer during recessions, extending the subsidized search period may be necessary to allow recipients to obtain suitable jobs. Considering UI in this light leads to less clear-cut prescriptions for extension length than does considering UI purely as insurance, but it does focus attention on post-employment

wages—a topic that is typically neglected under the backward-looking insurance perspective.

Together, the insurance and job-search efficiency arguments for extending UI benefits during recessions suggest three major empirical issues:

1. How far do EB programs compensate for lengthening unemployment durations brought on by recessions?
2. Do such programs prompt individuals to stay unemployed longer?
3. To the extent job search is prolonged by receipt of EB's, does that longer search result in recipients finding better jobs than they would otherwise be forced to accept?

Each of these questions should be examined in the context of the FSB program.

### Labor market effects of FSB

*Effects of FSB on the length of unemployment spells.* There is rather substantial literature dealing with the effects of UI insurance benefits on lengths of unemployment. Most of that literature focuses on the UI “wage replacement ratio” (that is, the ratio of UI benefits to net potential wages) and attempts to estimate the extent to which high values for that ratio lead to increased job search. Hamermesh (1977) concludes his summary of a number of studies with a “best” point estimate that every 10 percentage point increase in the wage replacement ratio is associated with about one-half week of additional unemployment.<sup>15</sup> He also indicates a belief that the disincentive effects of UI are somewhat smaller

than this during periods of labor market weakness. However, the empirical support for that proposition is weak.

How relevant the findings of overall work disincentives associated with UI are to the FSB program is unclear. On the other hand, if UI incorporates disincentives, extending potential benefits must in some way increase these. But because EB programs (including FSB) have no effect on the wage replacement ratio, there is no direct way to estimate the size of such effects from most of the empirical work.<sup>16</sup> A few studies have attempted to estimate directly the effects of different UI potential duration on the length of unemployment spells. Results for seven of these studies are summarized in Table 2. For ease of comparison, all results are reported as the estimated impact of 1 additional week of potential duration of UI benefits on the length of an individual's unemployment, although not all of the studies cited actually state their conclusions in that way.

Overall, the impression given by Table 2 is that results are extremely varied. Estimates range from insignificant effects (Ehrenberg and Oaxaca) to point estimates that imply that each week of potential duration leads to almost one extra week of unemployment (Holen and Walsh). This range can be narrowed somewhat by eliminating those studies that fail to meet two criteria: first, that potential UI duration be accurately and appropriately measured; and second, that special problems involved in using UI weeks-compensated data as a dependent variable be addressed. Under these conditions, the Brewster, Newton-Rosen and Moffit-Nicholson studies provide the most reliable estimates. According to these studies, each week of potential UI benefits increases the unemployment spell length by between 0.1 and 0.4 weeks. Some portion of the remaining dispar-

TABLE 2. Summary of research on disincentive effects of longer UI durations

Author	Data set	Effect of 1 additional week of potential duration on unemployment	Comments
Ehrenberg and Oaxaca (1976)	National Longitudinal Survey	0	Potential duration poorly measured
Holen (1977)	UI recipients	0.8	Used compensated weeks as dependent variable
Brewster (1978)	FSB recipients	0.4–0.6	Simple use of potential duration as independent variable. Spell independently measured.
Walsh (1978)	Recipients of redundancy payments in Ireland	0.4–1.0	Larger estimated effect for weeks employed
Newton and Rosen (1979)	UI recipients in Georgia	0.4–0.5	Used weeks compensated and maximum likelihood procedures
Solon (1979)	UI exhaustees in New York	0.3 <sup>1</sup>	Unusual independent variable used—makes interpretation different
Moffitt and Nicholson (1979)	FSB recipients	0.1	Used linked budget constraint and maximum likelihood procedure. Estimate based on weeks employed.

<sup>1</sup> Based on Solon's estimate that EB availability for 13 weeks increased unemployed weeks by 4. Solon's estimate for the effect of EB availability on employment by “repeaters” was similar to this estimate also.

ities in these estimates arises from the fact that the smaller (Moffit-Nicholson) estimate does not include the effect that additional weeks of benefits may have on inducing labor force participation among UI-eligibles whereas the larger estimates do, at least partly, include such effects. For the FSB program as a whole, then, the conclusion would be the eligibility for this increase in average potential duration of about 24 weeks increased the average length of unemployment spells by between 2.4 and 9.6 weeks where the larger of these figures also includes induced participation effects.

Few independent estimates of the effect of EB programs are available that are based on macroeconomic data. It has not been possible to differentiate between the effects of such programs and those of other economic factors on the lengths of unemployment spells. In one study of aggregate exhaustion rates, Nicholson and Corson (1978) found that availability of EB and FSB benefits did increase such rates.<sup>17</sup> That finding provides implicit support for the notion that those programs also increased the length of unemployment spells. The quantitative size of such effects was roughly consistent with the smaller of the estimates from the microeconomic studies.

The overall conclusion, then, is that the FSB program did increase the average length of unemployment experienced by UI recipients. The extent of that increase was at least two and one-half weeks and perhaps significantly more if participation effects are taken into account. When applied to the 10.4 million individuals who collected a UI first payment in 1975, that figure implies there were about 25 million more weeks of unemployment that year than there would have been in the absence of FSB. In other words, about 6 percent of the total weeks of unemployment experienced by the civilian labor force in 1975 was attributable to FSB. Without it, the overall unemployment rate that year would have been 7.9 percent instead of the 8.5 percent officially recorded. Allowing for participation effects would significantly increase the discrepancies between the unemployment rates.

*FSB and job search.* Work disincentive effects that arise from receipt of UI benefits may be counterbalanced by beneficial job search outcomes. Continued availability of benefits permits individuals to hold out for, and perhaps ultimately to receive, higher wages. Hence, from an overall allocational perspective, the effect of UI is ambiguous—its negative work disincentive must be weighed against its positive promotion of better job matches. Which effect dominates remains an unanswered, empirical question. Some authors (Ehrenberg and Oaxaca, 1976 and Holen, 1977) have reported both significant disincentive effects and significant positive wage effects.<sup>18</sup> Classen (1977), however, found only significant disincentive effects with no observable wage effects.<sup>19</sup> These widely differing results may be explained

by the absence of any universally agreed-upon conceptual model of the search process and by the different statistical methodologies employed by the authors. An indirect test of the beneficial job search impact of UI benefits is provided by the literature on reservation wages and search intensity. Despite a strong theoretical presumption that UI benefit levels should affect reservation wages, there is practically no empirical support for the proposition (see Crosslin, 1975).<sup>20</sup> Similarly, the effect of UI on search intensity has been found to be positive in some studies (Crosslin, 1975)<sup>21</sup> and negative in others (Barron and Mellow, 1979).<sup>22</sup> All of these studies are subject to a variety of methodological criticisms, and in any case the precise connection between search strategies and ultimate wages has not been clearly documented.

Given the paucity of research on job search effects of regular UI and the contradictory findings of the few existing studies, it is not surprising that there is virtually no literature on the job search effects of EB programs such as FSB. In theory, the direction of such effects seems clear enough. EB programs raise the extent to which UI compensates individuals for their unemployment spells, although the programs do not change the wage replacement ratio occurring during periods of benefit collection. That should induce individuals to adopt higher reservation wages, which in turn should cause recipients to extend the duration of their unemployment spells and to hold out for ultimately higher wages. Increases in potential UI durations do seem to lead to increases in observed unemployment durations. Whether this increased employment is used productively to search for better jobs is the issue.

Empirical evidence on the effect of extended UI durations on job search productivity is extremely meager. Among those studies of regular UI recipients that attempt to estimate the labor supply effects of changes in potential duration, only the Holen (1977) paper reports a significant effect.<sup>23</sup> Her estimate suggests that each week of additional potential duration results in a \$2.50 increase in post-unemployment quarterly earnings—presumably attributed to the prolonged and more effective job search made possible by the added duration. But, as Holen herself points out, this estimate may be biased upward by the relationship between individuals' prior weeks of employment and their regular UI duration eligibility.

Only the Corson and others (1976)<sup>24</sup> and Brewster and others (1978)<sup>25</sup> studies of FSB recipients explicitly considered the effects of potential duration on job search among EB recipients. Those studies found little in the way of significant effects. Regardless of whether job search activities were measured in terms of results (i.e., post-unemployment wage) or in terms of inputs to the search process (reservation wages or various measures of search intensity) no consistent effects of potential duration were found. But because these studies

were limited to relatively long-term unemployed, the results do not really answer the question of how variations in UI potential durations might affect a more representative group of recipients.

In conclusion, very little is known about how changes in potential durations affect recipients' job search. On the theoretical level there is some presumption that increases in potential duration should lead to better job matches for approximately the same reasons that changes in UI benefit levels should. But empirical support for that proposition is virtually nonexistent. The issue remains open.

### Macroeconomic issues in UI benefit extensions

In addition to affecting individual recipients' decisions, extensions in potential duration have effects on the overall economic activity level.

One purpose of UI benefits is to cushion the decline in disposable income that occurs during a recession and thereby to stabilize the overall level of aggregate demand and macroeconomic activity. For regular UI benefits this result is more or less "automatic." No discretionary policy decision is necessary because the regular program simply absorbs a larger caseload and pays out higher aggregate levels of benefits as layoffs increase during the early stages of a downturn. In this respect, the automatic stabilization provided by regular UI benefits is similar to that provided by the automatic reduction in Federal tax receipts during recessions, although of a much smaller dollar magnitude.<sup>26</sup>

For the regular EB program the argument is similar but more complicated. Since 1970, EB benefits have been "triggered" automatically as State Insured Unemployment Rates (IUR's) increase. Frequently, these trigger requirements have been relaxed or even waived in response to recessionary indicators—for example, rising exhaustion rates. Although they are not so "automatic" as regular UI benefits or Federal tax collections, EB benefits can, for most purposes, be categorized along with the regular programs. Those benefits represented about 25 to 30 percent of total regular UI benefits during the 1974–75 recession.

Where regular UI and EB programs take effect automatically, programs such as FSB are usually regarded as "discretionary." These programs have been implemented through an explicit legislative action in response to a perceived policy need. Thus, so far as it is a macroeconomic stabilizer, FSB may be appropriately compared to other discretionary fiscal policies. In making that comparison on a theoretical level, two criteria are of central concern: the size of the "multipliers" and the relative flexibility with which FSB can be implemented in response to stabilization needs.<sup>27</sup>

There is general agreement that the multiplier for government transfer payments, such as FSB, is fairly

large. It is clearly larger than the multiplier for tax reductions because transfer recipients spend a higher fraction of their incomes than do taxpayers in general. It may be nearly as large as the multiplier for government expenditures on goods and services. It is not clear whether there are reasons to expect the multiplier for extended UI benefits to differ at all from that for other government transfer programs. On the one hand, UI recipients may have higher incomes than do other transfer recipients, thereby implying a somewhat smaller multiplier. On the other hand, because UI benefits are more closely related to temporary declines in family income than are other transfer payments, there is probably a high marginal propensity to spend out of such income and therefore a correspondingly high multiplier. There is no clear way to choose between these theoretical probabilities, and empirical research on the matter is virtually nonexistent.

With respect to legislative and administrative flexibility, FSB-type emergency benefit extensions have a number of advantages. Because the programs operate through an existing administrative mechanism, payments can be initiated quickly without developing a new payments process. Of course, recessionary tax rate reductions share the same advantage, but withholding procedures and filing dates do constrain their flexibility to some degree. UI extensions can also be more quickly implemented than either Federal spending or Federal employment programs because much less planning and attention to the nature of individual projects is required. Finally, and more conjecturally, UI extensions provide a more flexible policy response to recessions because the political intricacies involved in implementing them may be less complex than for most other spending policies.

Of course, extending UI benefits is not a perfectly flexible fiscal policy. There may be lags in implementation arising from the need to coordinate Federal policies with existing State UI systems. Peak-load problems in local offices may inhibit the timely disbursement of payments. Phasing out EB programs also involves some inflexibility, primarily because of the built-in inertia which provides recipients with a relatively large number of additional weeks of eligibility—two 13-week segments in the case of FSB, for example. On the whole, however, these inflexibilities are probably of minor importance compared with those of other discretionary fiscal policies.

From a theoretical perspective, FSB-type emergency extensions compare rather favorably to other macrostabilization policies. They have both the flexibility and the potential multiplier impact on aggregate demand to warrant consideration as an important policy option. Of course, such a conclusion is based on prior considerations and does not address the actual performance of FSB.

## Macroeconomic performance of FSB

In this section we will examine two aspects of the actual macroeconomic performance of FSB: first, the importance of FSB relative to other Federal stabilization measures during the 1974–75 recession, and second, administrative and technical problems involved in implementing and phasing out FSB. Information on the first of these questions is presented in Table 3, which shows total FSB benefits paid during the 1974–77 period. For comparison purposes, Table 3 also presents data for the same period on total UI benefits, on the Federal budget deficit, and on two other discretionary fiscal policies, namely public service employment and tax rate reduction.<sup>28</sup>

Three general conclusions may be drawn from these data. First, during the 1974–75 recession FSB benefits constituted a relatively small portion of all discretionary fiscal policies. Payments under the program accounted for less than 10 percent of the “full employment” deficit and, of course, made up an even smaller fraction of the actual Federal deficit. Tax reductions, both automatic and legislated, clearly played a far more important role in both automatic and discretionary Federal stabilization efforts.

Second, the data in Table 3 show that even though FSB benefits were small relative to the overall Federal budget, they were relatively large when compared with regular UI benefits or with spending under public service

employment programs. During the period from third quarter, 1975 to second quarter, 1976, when FSB benefits for a full 26-week period were in effect in practically all States, payments under FSB amounted to about 20 percent of all UI benefits and to perhaps as much as 30 percent of “recession induced” UI benefits. Hence, FSB contributed in a major way to the stabilizing ability of the UI system as a whole. Similarly, for most of the quarters during the recession, FSB benefits totaled more than expenditures under public service employment programs; they should not be regarded as trivial to overall stabilization efforts.

A third conclusion is that the actual timing of FSB benefit payments during the 1975–76 period was not exactly consistent with the needs of stabilization policy. Aggregate payments did not peak until the first quarter of 1976, a period well after the trough of the recession had passed. Similarly, FSB benefit levels in the first two quarters of 1975 were relatively small even though these were probably the quarters during which the benefits were most needed for maintaining aggregate purchasing power. This lag in the growth of FSB benefits is due to the particular way in which FSB was implemented and to the nature of its relationship with the regular UI program.

A first obvious reason for the lag in the start of large-scale spending under FSB is simply that it takes time for individuals suffering layoffs in the early stages of the recession (say, November or December 1974) to be unemployed long enough to qualify for FSB. Most of these individuals would have been eligible for up to 39 weeks under regular UI and EB, and they would not have begun to collect FSB until sometime in the third quarter of 1975. The sharp upswing in FSB benefits in the third and fourth quarters of 1975 reflects exactly this lagged response to the recessionary layoffs. Benefit payments during early 1975, on the other hand, went primarily to individuals who had been laid off prior to the recession but had not ended their UI benefit years. These individuals constituted a “backlog” that became eligible for benefits immediately upon implementation of the FSB program.<sup>29</sup> The presence of this lag between recessionary layoffs and the actual buildup of FSB payments makes it necessary to modify somewhat the theoretical notion that emergency UI extensions represent highly flexible and responsive tools for macroeconomic stabilization purposes. The lag between a policy’s implementation and its impact should be clearly recognized.

Although purely administrative implementation problems also caused some part of the lag in the buildup of FSB benefits payments, the effect was probably negligible. By the end of the first quarter of 1975, all States had reached agreement with the Department of Labor to begin paying benefits, and operational problems in making those payments were relatively small despite the peak load problems being experienced by local UI offices. Probably more significant macroeconomically

TABLE 3. Federal stabilization policies, 1974–77 (all figures in \$ billions)

	Federal deficit	Full employment deficit	All UI payments	FSB payments	Public service employment	Tax cuts <sup>1</sup>
1974						
1st quarter	5.5	1.3	5.4	—	0.5	—
2nd quarter	7.6	3.5	6.3	—	0.2	—
3rd quarter	8.0	4.5	7.3	—	0.3	—
4th quarter	21.7	2.5	9.4	—	0.4	—
1975						
1st quarter	48.0	6.9	15.1	0.8	1.1	1.8
2nd quarter	99.9	55.2	18.6	1.8	2.7	42.3
3rd quarter	66.3	29.9	18.7	2.5	2.0	15.2
4th quarter	68.2	32.3	17.6	3.5	2.5	15.0
1976						
1st quarter	57.5	28.6	17.7	3.8	2.7	12.9
2nd quarter	47.3	21.0	15.3	3.3	2.8	12.8
3rd quarter	52.2	27.0	14.7	2.1	2.4	11.6
4th quarter	57.4	30.9	14.7	2.0	2.8	11.8
1977						
1st quarter	37.2	26.5	15.1	2.1	2.4	1.4
2nd quarter	40.9	27.7	12.3	1.5	2.9	3.4
3rd quarter	53.6	40.2	11.6	0.9	3.7	7.9
4th quarter	53.6	42.2	11.8	0.5	4.9	6.7

<sup>1</sup> For 1975–76 includes the Tax Reduction Act of 1975, the Revenue Adjustment Act of 1975, and the Tax Reform Act of 1976. For 1977 includes only the Tax Reduction and Simplification Act of 1977.

SOURCE: *Survey of Current Business*. Annual Surveys of Fiscal Policy.

were the legislative and operational difficulties involved in finally terminating the FSB program. As Table 3 shows, FSB benefits continued at an annual rate of over \$2.0 billion into the first quarter of 1977, more than a year and a half after the low point of economic activity. This occurred because FSB was gradually phased out by State-by-State trigger mechanisms and because even when claims were no longer being accepted under FSB, individuals collecting benefits were entitled to their full extensions. Of course it might be argued that fiscal stimulation was still needed for the economy well into 1977, but whether FSB was an appropriate policy for that purpose remains questionable.

## Conclusion

For some issues, the evidence on FSB seems relatively clear. On a macroeconomic level, FSB benefits were shown to have potentially stabilizing effects, although the program did exhibit some shortcomings in terms of the precise timing of its fiscal impact. Relative to discretionary tax reductions and various automatic stabilizers, however, the effect of FSB was quite small.

Although the analysis of FSB so far does clarify some allocational questions, several others remain relatively untouched. There is, for example, no very good evidence about the effect of FSB benefits on recipients' job search behavior. Nor has there been an empirical investigation of how the macroeconomic effects of FSB might differ from the effects of other Federal transfer programs. Answers to these and several other questions are needed if we are to have a complete assessment of FSB's allocational effect.

## Distributional Effects of FSB

In this section we examine two distributional arguments for extension of FSB during recessions. The first, which we term the "intertemporal equity argument" concerns the question of whether workers laid off during recessions are treated equally with workers laid off during normal periods, and whether extensions are necessary to ensure this similarity of treatment. A second argument for extensions—what we call the "income maintenance argument"—concerns the necessity of providing EB's to low-income workers during recessions.

### Intertemporal equity and benefit extensions

One goal of the UI system is to provide insurance protection for individuals suffering a loss of earnings through involuntary unemployment. Because of financial constraints and potential disincentive effects, only a portion of lost weekly earnings is replaced by UI and the duration of benefits is limited. Consequently, it is neces-

sary to develop a measure of "adequacy" in order to judge how well the UI system meets its protection goals.

Most discussions of this concept have focused on the weekly benefit amount and compared it both to past earnings and to a recipient's "fixed" or "recurrent" expenses. If UI benefits cover recurrent expenses (e.g., mortgage payments), individuals will not be forced to make major spending pattern adjustments while unemployed. Any loss in their standard of living will be temporary and end with reemployment. Clearly, the potential duration of benefits is an important factor in determining the adequacy of UI protection; if benefits covered only a small part of an individual's layoff period, they would be judged inadequate regardless of how high weekly payments were.

Potential durations that might be judged adequate during nonrecessionary periods might be inadequate during a recession. This suggests a rationale for the extension of benefits during recessionary periods: if we wish to treat individuals equally, in terms of benefits, those who are laid off during recessions should be eligible for longer potential UI benefits than those laid off during nonrecessionary periods. This rationale is similar to the insurance argument, that extensions may be required to maintain the "optimal" level of insurance protection when labor market conditions worsen. Both arguments suggest focusing on how well EB programs compensate for the effects of lengthening unemployment during recessions.

### The role of FSB during the 1974–75 recession

*Unemployment spells during the 1974–75 recession.* It is clear that the average length of unemployment increased substantially during the 1974–75 recession. Table 4 reports some general measures of labor market performance during that period, including a summary of the unemployment duration figures from the Current Population Survey (CPS). These data show that as the national unemployment rate rose from 5 percent in the first quarter of 1974 to nearly 9 percent in the second quarter of 1975, the median length of unemployment rose from 4.7 weeks to nearly 9 weeks. Even more significant for UI EB programs was the proportion of unemployment accounted for by periods over 27 weeks in duration; it rose dramatically from only 7 percent of the total in the first quarter of 1974 to more than 20 percent of the total in late 1975 and early 1976. This expansion in the incidence of long unemployment spells also had the effect of increasing the reported average length substantially.

The use of these published figures on the length of unemployment spells to assess the desirability of the benefit extensions incorporated into the FSB program poses a number of difficulties. First, the data include many individuals who were not eligible for UI, for example, new entrants. For this reason, it is not known

TABLE 4. Labor market measures during the 1974-75 recession

	National unemployment rate	Average duration of unemployment (weeks)	Median spell lengths (weeks)	Percentage of unemployment spells over 27 weeks	Insured unemployment rate
1974					
1st quarter	5.0	9.5	4.7	7.0	3.2
2nd quarter	5.1	9.7	4.8	7.5	3.3
3rd quarter	5.6	9.9	5.0	7.6	3.3
4th quarter	6.7	9.9	5.1	7.4	4.4
1975					
1st quarter	8.2	11.3	6.9	9.3	5.8
2nd quarter	8.9	13.9	8.8	13.6	6.5
3rd quarter	8.5	15.5	9.0	18.4	6.1
4th quarter	8.3	16.2	9.1	19.8	5.3
1976					
1st quarter	7.7	16.5	8.7	21.0	4.2
2nd quarter	7.6	15.9	7.9	18.5	4.4
3rd quarter	7.7	15.5	7.8	16.7	4.8
4th quarter	7.7	15.2	8.0	17.0	4.7
1977					
1st quarter	7.5	14.8	7.4	16.5	4.0
2nd quarter	7.2	14.6	6.9	15.2	3.8
3rd quarter	6.9	13.9	7.1	13.8	4.0
4th quarter	6.6	13.6	6.9	13.4	3.9

NOTE: All data seasonally adjusted.

exactly how the length of unemployment of UI recipients changed during the recession. Second, CPS data on employment spells are known to exhibit a number of conceptual problems that make it difficult to infer from them what is actually happening to an individual.<sup>39</sup> Third, UI and the CPS use different tests to differentiate between individuals who are temporarily unemployed and those who are out of the labor force. It is possible that many of the individuals identified as being long-term unemployed in the CPS would not meet UI "availability for work" requirements. These combined shortcomings of the CPS data make it impossible to ascertain the extent to which the incidence of relatively long unemployment increased among individuals eligible for UI during the 1974-75 recession. All that can be concluded is that the prevalence of such spells obviously increased and that the intertemporal equity criterion suggests that UI benefits should have been extended to cover some portion of them. Whether extensions under EB alone would have been sufficient for that purpose is difficult to say. Data on mean and median spell lengths from the CPS suggest that EB was insufficient because these indicators increased by much more than the 50 percent, while EB provides only a 50 percent expansion in UI entitlement. But such calculations are, at best, only indicative of the need for an FSB-type emergency program and provide little guidance as to the shape such a program should take. To obtain more specific insights on the question requires the use of other indicators.

*Effect of FSB on exhaustion rates.* One indicator of the need for FSB is provided by studies of UI exhaustion rates and how they were affected by FSB availability. Because FSB provided as many as 26 additional weeks of benefits, it presumably had a significant impact on the probability of any recipient's completely exhausting full UI entitlement. Assessing the precise size of that effect is made difficult, however, by the absence of detailed longitudinal data for a random sample of UI recipients. Rather, exhaustion rates under FSB must be inferred from existing program data, from various special samples of UI recipients, and from aggregate statistical studies. A review of these sources of information concludes that they show a reasonably consistent picture: that FSB reduced total exhaustion rates for UI during the 1974-75 recession to levels well below those that characterize regular UI during nonrecessionary periods.

Table 5 presents aggregate program data on the first and final payments under State UI programs and under FSB for the period from first quarter 1973 to first quarter 1978.<sup>41</sup> The table also shows the ratio of the number of UI final payments to the number of UI first payments made two quarters previously; this ratio, although it poses a number of difficult interpretational problems, is frequently referred to as "the" exhaustion

TABLE 5. UI program data, 1973-77

	UI first payments (thousands)	UI final payments (thousands)	Exhaustion rate <sup>1</sup>	FSB first payments (thousands)	FSB final payments (thousands)
1973					
1st quarter	1791	422	0.33	—	—
2nd quarter	1074	397	0.35	—	—
3rd quarter	1256	342	0.19	—	—
4th quarter	1207	333	0.31	—	—
1974					
1st quarter	2455	421	0.34	—	—
2nd quarter	1304	504	0.42	—	—
3rd quarter	1622	509	0.21	—	—
4th quarter	2348	492	0.38	—	—
1975					
1st quarter	4064	737	0.45	435	40
2nd quarter	2466	1210	0.52	597	266
3rd quarter	2100	1255	0.31	755	430
4th quarter	1935	976	0.40	874	476
1976					
1st quarter	2908	953	0.45	753	514
2nd quarter	1705	864	0.45	667	434
3rd quarter	1937	767	0.26	410	285
4th quarter	2036	701	0.41	388	267
1977					
1st quarter	3040	811	0.42	428	267
2nd quarter	1530	776	0.38	344	282
3rd quarter	1732	667	0.22	297	158
4th quarter	1682	592	0.39	107	202

<sup>1</sup> Equals UI final payments divided by UI first payments two quarters previously.

rate for regular UI.<sup>32</sup> This shows that immediately prior to the 1974–75 recession about 27 to 30 percent of UI recipients were exhausting their regular UI benefits. A norm of 25 percent is usually believed to characterize the UI program during periods of relatively full employment. During the 1974–75 recession—roughly the period from the fourth quarter of 1974 to the fourth quarter of 1975, a period long enough to include the lagged effects of the sharp downturn in late 1974—exhaustion rates for regular UI were about 10 to 12 percentage points above the prerecession levels. During the recession, that is, approximately 40 percent of UI recipients exhausted their regular benefit entitlement.

Did FSB, in combination with the regular EB program, reduce the proportion of UI recipients who exhausted all of their benefits and was that reduction significantly below the 40 percent who exhausted regular UI? The program data in Table 5 provide a partial answer. Over the period of the recession, FSB first payments amounted to about 70 percent of all UI final payments after allowing for the timing of FSB implementation and phaseout, and for lags arising from collection of EB benefits. In other words, the “EB exhaustion rate” during the recession appeared to be about 70 percent. Even if FSB had not been implemented, EB would have reduced the total exhaustion rate on UI from 40 percent to about 28 percent ( $= 0.40 \times 0.70$ ). From these data, the extension of UI benefits provided under EB alone appears to have been sufficient to reduce total exhaustion rates to near their prerecession levels.

Extensions provided under FSB, of course, reduced exhaustion rates still further. Data in Table 5 imply that approximately 50 percent of those individuals who collected an FSB first payment ultimately exhausted their full entitlement. Although there are again a number of conceptual problems involved in making such a calculation,<sup>33</sup> independent survey data support the same general conclusion,<sup>34</sup> namely that about half of all FSB recipients exhausted their benefit entitlement. Hence, it appears that when FSB was in effect during the 1974–75 recession about 14 percent ( $= .4 \times .7 \times .5$ ) of those individuals who received a first payment under the regular State UI program remained unemployed sufficiently long to exhaust all benefits. FSB reduced the total exhaustion rate well below its prerecession level.

Another way of estimating the impact of FSB on the total exhaustion rate for UI uses statistical regression techniques. In a case study of Pennsylvania and Georgia, Hight (1975) found that the total exhaustion rate for UI could be kept relatively constant by a policy of increasing potential durations by about 4 to 5 weeks for each percentage point increase in the IUR above 4 percent.<sup>35</sup> Since, as we showed previously, the IUR reached a maximum of about 6.5 percent (on a seasonally adjusted basis) during the recession, an increase of 12 to 13 weeks of potential benefits (approximately what was provided by EB) would have kept the total exhaustion

rate relatively constant. The larger increases resulting from implementation of FSB would have presumably reduced that rate.

Similar results using aggregate data from all 50 States were estimated by Nicholson and Corson (1978).<sup>36</sup> They found that the positive effect on exhaustions of a 1 percentage point increase in the IUR could be offset by a 15 percent increase in average potential durations (this calculation disregards any disincentive effects that may arise from increases in potential durations). Hence, the impact of the rise in the IUR from 3.5 percent prior to the recession to 6.5 percent at its depth could have been offset by roughly a 50 percent expansion in potential durations, which is about the expansion that was provided under the regular EB program. The Nicholson-Corson results suggest that the additional duration provided by FSB over and above that from EB should have reduced total exhaustion rates to about half the level they would have been in the program’s absence—a finding generally consistent with similar estimates provided from the program data.

*FSB compensation for earnings losses.* The argument presented above implicitly assumes that the exhaustion rate is an appropriate measure of whether UI is providing adequate protection during recessionary periods. An alternative and more comprehensive measure of protection is provided by the “earnings replacement rate,” the ratio of all UI benefits received during the period of unemployment to the after-tax earnings losses suffered during that period. We examine this measure of adequacy with the purpose of identifying how durations must be adjusted to keep earnings replacement rates roughly comparable between recessionary and nonrecessionary periods. The earnings replacement rate for an individual can be expressed as a weighted average of the earnings replacement rate for nonexhaustees and the earnings replacement rate for exhaustees:<sup>37</sup>

$$r = (1 - p)WRR + p WRR \left( \frac{D}{S} \right)$$

where:

- $r$  = replacement rate
- $p$  = probability of benefits exhaustion
- $D$  = potential benefits duration
- $S$  = unemployment duration of exhaustees
- $WRR$  = UI weekly benefit amount divided by after-tax earnings on the pre-UI job.

We expect that both unemployment duration and the probability of exhaustion are functions of the unemployment rate and UI potential duration. An examination of the expression shows, as we would expect, that if the exhaustion rate increases, the replacement rate drops. Furthermore, if we increase potential duration so as to hold the exhaustion rate constant, the replacement rate

may still drop if the ratio of potential to actual duration of exhaustees declines. Thus, holding exhaustion rates constant may not hold the earnings replacement rate constant.

To examine this relationship in more detail we can begin by calculating what change in potential duration will maintain a constant earnings replacement rate for an individual when unemployment rates rise. In the Appendix to this chapter it is estimated that a 1 percentage point rise in the IUR can be offset by a 5.1-week rise in the potential duration of UI benefits. Furthermore, it is shown that if durations increase only enough to keep the exhaustion rate constant, the earnings replacement rate will drop slightly (less than one-half a percentage point). By this criterion, duration should have been increased during the 1974–75 recession about 15 to 18 weeks because the IUR rose about 3 to 3.5 points during the recession. That is, EB benefits alone were not quite enough to keep earnings replacement rates constant, but the addition of 26 weeks of FSB was too much. One additional 13-week extension (or less) would have been more than sufficient to provide individuals laid off during the recession with earnings replacement rates equal to those of individuals laid off prior to the recession.

Whether FSB was “necessary” in order for the UI system to continue adequate protection of unemployed workers against earnings losses during the 1974–75 recession therefore remains a difficult question. Clearly, the incidence of long-term unemployment increased substantially during the recession and some type of EB program was required if the commitment to compensate most workers for their complete unemployment spells were to be fulfilled. General labor market data suggest that extensions provided under the regular EB program would have been insufficient to meet this need. But use of such aggregate measures are subject to a number of biases which may overstate the needs of the UI-eligible population for increased coverage. Data on FSB exhaustions suggest that EB alone might have been sufficient to prevent exhaustion rates from rising during the 1974–75 recession. Of course, even if exhaustion rates were held constant, the absolute number of exhaustees would have increased because of the increase in the total number of UI first payments during the period. EB alone might not have prevented some decline in earnings replacement rates, which would have fallen slightly. But that fall could have been offset by extensions of a much smaller magnitude than FSB actually provided.

#### **Income maintenance and benefit extensions**

A second distributional rationale for FSB relates to the concern that individuals who exhaust regular UI plus EB during a recession will lose their principal source of income and fall below poverty level. By this argument, the only feasible way to maintain adequate

incomes for these exhaustees is to extend UI benefits. This argument focuses attention on the lower end of the income distribution and suggests that the adequacy of EB be judged according to a social standard such as the poverty line rather than according to an individual's pre-UI earnings or recurrent expenses.

This anti-poverty rationale for UI extensions is based on two implicit assumptions. First, it is assumed that present income maintenance programs will not provide exhaustees with an income large enough to prevent a substantial increase in the proportion of exhaustee households with incomes below the poverty line. Second, it is assumed that the incidence of low incomes among exhaustees will be more severe during a recession. If this were not the case, this argument for UI extensions could be applied to nonrecessionary periods as well.<sup>38</sup> The assumption that the poverty problem among exhaustees is more serious during recessions is based on three additional assumptions. First, that during recessions other household income (e.g., spouse's earnings) is likely to be lower, which will contribute to a greater incidence of poverty after UI benefits are exhausted. Second, that if potential UI durations were extended during recessions to yield exhaustion rates that equalled those of nonrecessionary periods, exhaustees might still be expected to face longer post-exhaustion spells of unemployment. In that case, considerations of equity would suggest extending durations to equalize the overall rate of earnings replacement. The third assumption is that even if postexhaustion durations of unemployment were equal, individuals unemployed during nonrecessionary periods might have a greater voluntary component to their unemployment. Other things being equal, the existence of lower reservation wages or smaller UI disincentive effects during recessions would provide some evidence of this and would contribute to a need for further income support.

#### **Anti-poverty effects of FSB**

*Adequacy of other income security programs.* Tables 6 and 7 show whether other income security programs would have provided adequate protection to EB exhaustees in the absence of FSB. Data in Table 6 show eligibility rates for each of four major means-tested programs that might have provided income to EB exhaustees in the absence of FSB.<sup>39</sup> These data show that most families receiving FSB would not have been eligible for any means-tested benefits except food stamps. Considering both the income and asset tests for eligibility, 57 percent of the families would have been eligible for food stamps but only 10 percent would have been eligible for either the regular Aid to Families with Dependent Children (AFDC) program or the AFDC-U (unemployed parent) program. Almost no families would have been eligible for Supplemental Security Income (SSI) or means-tested veterans' benefits. The

TABLE 6. Percentages of FSB households eligible for selected transfer programs if unemployment compensation had not been available

Transfer programs	FSB recipients
AFDC/AFDC-U	
Categorically eligible	
AFDC regular	5.4 pct
AFDC-U	10.1
Income eligible	12.3
Income and asset eligible	9.7
SSI	
Categorically eligible	10.2
Income eligible	5.2
Income and asset eligible	3.5
Food stamps	
Income eligible	64.8
Income and asset eligible	56.8
Means-tested veterans' benefits	
Categorically eligible	2.0
Income eligible	1.4 pct
Weighted sample size	6,316

SOURCE: W. Corson and others, *A Study of Recipients of Federal Supplemental Benefits and Special Unemployment Assistance*, MPR Project Reports Series #77-01, January 1977, Table IV.5.

TABLE 7. Distribution of FSB households by size of income at FSB start relative to poverty threshold, for selected measures of income<sup>1</sup>

Ratio of income to poverty line <sup>2</sup>	Income excluding FSB	Income including FSB
0.0-0.5	25.3 pct	0.6 pct
0.5-1.0	14.0	16.4
1.0-1.5	18.8	22.2
1.5-2.0	12.6	14.8
2.0-3.0	15.5	21.4
3.0-4.0	8.0	12.6
4.0 and over	5.8	12.1
Total	100 pct	100 pct
Weighted sample size	6,094	5,816

<sup>1</sup> All income measures include the bonus value of food stamps. Income from this source is currently not counted in the official U.S. government definition of income.

<sup>2</sup> If a ratio of income to the poverty line, calculated to several decimal points, equalled the end point of a specific range, that observation was assigned to the lower category.

SOURCE: W. Corson and others, *A Study of Recipients of Federal Supplemental Benefits and Special Unemployment Assistance*, MPR Project Reports Series #77-01, January 1977, Table IV.6.

low number of households eligible for AFDC, SSI, and veterans' benefits is due mostly to the fact that few FSB families fell into the categories of families serviced by these programs, that is, single-parent families with children or two-parent families with an unemployed father or an incapacitated parent (AFDC), the aged (SSI),<sup>40</sup> or veterans with wartime experience (veterans' benefits). For example, only 5 percent of the families

met the categorical requirements for regular AFDC and only 10 percent met those for AFDC-U. The Food Stamp program, on the other hand, has no categorical requirements.

The impact of these requirements is illustrated most strongly by considering female heads of households in which no male resided. In this case, data (not reported in the table) show that 74 percent of these families were categorically eligible, and, of them, 70 percent were income and asset eligible for AFDC; yet this latter group accounted for only 5 percent of the total FSB population.

Because AFDC and SSI eligibility imply food stamp eligibility, approximately 13 percent of those on FSB would have been eligible for two or more of the major welfare programs. Thus, very few would have been eligible for more than one program that provides cash or, in the case of food stamps, "near" cash benefits. The bulk of the recipients with low incomes would have been eligible for food stamps only.

Despite these low eligibility rates, it is possible that the benefits might have been concentrated on those with the lowest household incomes. Proposed reforms would remove the categorical restrictions on eligibility for benefits. Because these restrictions are one of the main reasons why current means-tested programs do not fill the income gap that would be left if FSB were not available, we reexamined this question assuming that the Carter administration's 1977 welfare reform proposal, The Program for Better Jobs and Income, had been enacted.<sup>41</sup> This proposal would have replaced the AFDC, SSI and Food Stamp programs with a Federal cash benefit program for all types of families; State supplements for the aged, blind, disabled, and families with children; and an expanded Earned Income Tax Credit, and public jobs for families with children.

A reanalysis substituting this program for the current means-tested transfer system shows that 58 percent of the FSB households would have been eligible for one or more benefits (cash, tax credit, or a job) in the absence of FSB. The percentage with incomes below the poverty line would have been 33 percent, compared to 39 percent under the current means-tested system. This would have meant a major difference for the very poorest households. Under this plan 13 percent of the households, compared with 25 percent under the current system, would have had incomes below 50 percent of the poverty level. FSB would still have had an additional antipoverty effect; it would have left only 14 percent of the households below the poverty line, and virtually none would have had incomes below one-half of the poverty level. Whether this additional antipoverty effect would be desirable during a future recession is, of course, a political question; but the income maintenance argument for UI extensions would be less persuasive if a major welfare reform proposal were enacted.

*Income needs for exhaustees during recessions.* Another assumption underlying the anti-poverty argument for FSB-type extensions is that the loss of UI benefits is more harmful during recessions. Otherwise, the anti-poverty argument would apply to nonrecessionary periods as well. Three pieces of empirical evidence could support this hypothesis: available household income might be less in the absence of UI extensions; post-exhaustion unemployment durations might be longer; and both reservation wages and the disincentive effects of extensions might be smaller during recessions. Unfortunately, little relevant empirical evidence is available. Data on household incomes are available for FSB recipients at the beginning of FSB in early 1975 and for a sample of regular UI exhaustees (at the time of exhaustion) in four cities for October–November 1974.<sup>42</sup> Because the exhaustee sample depleted its benefits just prior to the start of the 1974–75 recession, we could consider it representative of a nonrecession case. A comparison of household income available to this group with that available to the FSB sample in the absence of FSB supports our hypothesis. Thirty-five percent of the exhaustees had household incomes below the poverty line, compared to 39 percent of the FSB households.<sup>43</sup> The comparable figures for 150 percent of poverty-line income were 49 and 58 percent, respectively. While these differences are statistically significant, they are not very large and only weakly support the argument that the “need” of exhaustees is greater during recessions.

Empirical evidence for our other two hypotheses is even sparser. Exhaustee reemployment rates provide an indication of postexhaustion duration, and such rates are available for three recent studies: the four-city study mentioned above, an Arizona study, and a Pennsylvania study. Benefit exhaustion in the four-city sample occurred just prior to the start of the 1974–75 recession, so reemployment rates were probably negatively affected by this recession.<sup>44</sup> Unfortunately, the provision of EB’s two or three months after exhaustion also affected these rates in the same direction. Claimants in the Arizona sample, on the other hand, exhausted benefits at the end of the same recession, during the months May 1976 to August 1977, and should probably be viewed as a nonrecession sample. Finally, the Pennsylvania data were collected in 1966–67, a nonrecessionary period.

Reemployment rates for each of these samples are reported in Table 8 and tend to support our hypotheses. Differences in reemployment rates for exhaustees are statistically significant; the rates are substantially larger for exhaustees in the nonrecession samples, 12 to 17 percentage points higher at the end of 12 weeks. However, this evidence provides only weak support for our hypotheses. The samples are not nationally representative, they were not all drawn at ideal times, and the

TABLE 8. Reemployment rates for UC exhaustees by weeks since exhaustion

Weeks since exhaustion	Four-city study	Arizona study	Pennsylvania study
2	5.5 pct	11.5 pct	—
4	10.5	18.3	24.5
6	14.1	26.4	—
8	16.9	30.2	33.0
10	20.3	37.0	—
12	23.0	40.0	35.5
14	25.2 pct	42.1 pct	2 —
Sample size	1054	235	11,511

SOURCE: Data for the four-city sample are for whites and are found in Nicholson and Corson (1976), Table V.8. Data for the Arizona study came from Burgess and Kingston (1979), Table 11.7. Data for the Pennsylvania study are reported in Murray (1974).

reemployment rates for the four-city exhaustee sample may have been influenced by the extension of UI as well as by the weak labor market.

One final hypothesis in support of the assumption that UI exhaustees are more needy during recessions is that unemployment during a recession has a smaller voluntary component. Other things being equal, this hypothesis would be supported if we found lower reservation wages or smaller UI disincentive effects during recessions. We were unable to find any evidence on the cyclical nature of reservation wages, and only one study—which does support our hypothesis—provides evidence for UI disincentive effects over the business cycle. This study, which used data on State averages, showed that the effect of benefits on duration was smaller in high than in low unemployment years.<sup>45</sup>

*Anti-poverty effectiveness of FSB.* The empirical evidence presented above suggests that the assumptions underlying the anti-poverty argument for FSB are essentially correct—current income maintenance programs do not provide “adequate” incomes for UI exhaustees, and exhaustees’ need for income support is probably greater during recessionary periods. Consequently, we should evaluate how well the FSB program fulfilled this anti-poverty goal. Two measures of this effect are available.

First, at the time of EB exhaustion, 39 percent of the FSB household would have had weekly incomes below the poverty line if FSB had not been extended (see Table 7). With FSB, this figure dropped to 17 percent. Furthermore, less than 1 percent had incomes below 50 percent of the poverty level with FSB, compared with 25 percent without FSB.<sup>46</sup>

An alternative way of examining this effect is to consider household income over 1 year rather than at a point in time. Data on the distribution of 1975

TABLE 9. Distribution of FSB households by size of 1975 income relative to poverty threshold, for selected measures of income <sup>1</sup>

Ratio of income to poverty line <sup>2</sup>	Income excluding FSB	Income including FSB
0.0-0.5	13.2 pct	6.2 pct
0.5-1.0	19.3	16.7
1.0-1.5	15.0	17.4
1.5-2.0	13.2	14.5
2.0-3.0	19.7	21.5
3.0-4.0	9.9	12.5
4.0 and over	9.6	11.3
Total	100 pct	100 pct
Weighted sample size	6,769	6,805

<sup>1</sup> These income figures exclude the bonus value of food stamps.  
<sup>2</sup> If a ratio of income to the poverty line, calculated to several decimal points, equalled the end point of a specified range, that observation was assigned to the lower category.  
 SOURCE: Special tabulations from the MPR FSB study data tape.

household income for individuals receiving an FSB first payment in that year are presented in Table 9. These data show that without FSB benefits 33 percent of the households would have had poverty level incomes in 1975 if they had made no response to the loss of FSB benefits.<sup>47</sup> With FSB's 23 percent had poverty-level incomes for the year. Thus, using this annual income figure, FSB reduced the incidence of poverty among these households by about one-third. The impact of this effect varied widely by household type. For example, data (not reported in the table) show that 36 percent of the households with a married man as primary earner and 18 percent of the households with a married woman as primary earner would have had incomes below the poverty standard without FSB. With FSB the corresponding figures were 23 and 15 percent.

While the above figures show that the FSB program had a substantial anti-poverty effect, the data reported in Table 9 also show that some households would have maintained relatively high incomes without FSB. Almost 40 percent would have had 1975 incomes above two times the poverty level without FSB, while 10 percent would have had incomes above 4 times that level. For a family of 4 this represented an annual income in 1975 of about \$22,000. Thus, although the FSB program was superior to the available means-tested programs in reducing poverty for UI eligibles, it was inefficiently targeted because a substantial amount of benefits went to the nonpoor.

## Conclusion

We have examined two income distributional arguments for the FSB program. The first argued that in order to treat individuals laid off during recessions in the same way as those laid off at other times, UI benefits

should be extended because of the longer unemployment experienced during recessions.

Two measures of this intertemporal equity were examined. First, total exhaustion rates were estimated for the period 1973-1978. It was shown that EB alone was sufficient to keep these rates from rising above their prerecession levels and that the FSB program had the effect of reducing exhaustion rates to about half their prerecession levels. As a more comprehensive measure of intertemporal equity we introduced the "earnings replacement rate," that is, total benefits divided by lost after-tax earnings. We estimated that to hold earnings replacement rates constant, potential UI duration should be extended by 5.1 weeks for each 1 percentage point increase in the IUR. This estimate implies that during the 1974-75 recession EB benefits alone were not quite enough to keep earnings replacement rates constant but the addition of 26 weeks of FSB was too much. One additional 13-week extension (or less) would have been more than sufficient to provide individuals laid off during that relatively severe recession with earnings replacement rates equal to those of individuals laid off in nonrecessionary periods.

The second argument for the FSB program claims that it was needed to prevent the income of UI exhaustees from dropping below the poverty level. This income maintenance argument assumed that existing means-tested transfer programs would not have provided adequate income support for UI exhaustees and that the need for income support by UI exhaustees was greater during recessionary periods. Available empirical evidence was examined and it suggested that both of these assumptions were correct, although the evidence concerning the second was quite weak. The anti-poverty effectiveness of the FSB program was then examined and it was concluded that FSB benefits had a substantial effect. These benefits reduced the incidence of poverty among FSB households by about one-third. However, this anti-poverty effect was inefficiently targeted because substantial benefits were distributed to the nonpoor.

## Extension of Benefits in Future Recessions

### When should an FSB program be enacted?

The answer to this question depends to a large extent on the primary rationale for extending benefits during a recession. If the primary aims of such an extension are to compensate individuals for the increase in unemployment durations and to treat these individuals in the same way as individuals laid off during nonrecessionary periods, the current EB program would be sufficient if the recession were relatively mild. For example, the automatic extensions mandated under the EB program would keep exhaustion rates from rising

above their prerecession levels if the rise in the IUR remained below 3 percentage points. Alternatively, if we wished to keep earnings replacement rates, rather than exhaustion rates, constant, EB would be sufficient if the rise in the IUR were less than about 2.5 points.<sup>48, 49</sup>

If, instead, the primary rationale for an FSB program is to help prevent a rise in the incidence of poverty among the unemployed, an FSB program might be enacted that would provide lower exhaustion rates or higher earnings replacement rates than those normally available. This sort of FSB program might be enacted in relatively mild as well as relatively severe recessions. The available empirical evidence, however, only weakly supports the notion that the need for an income-maintenance-oriented FSB program is greater during recessions.

Finally, even if the judgment is made that indicators suggest a recession severe enough to warrant an FSB-type program, there are good reasons for avoiding premature implementation. EB provides some breathing room: individuals who are just exhausting benefits when the recession begins receive 13 weeks of coverage from EB; and those who are just being laid off can collect as many as 39 weeks of benefits. There is sufficient time between the beginning of a recession and the time when the first claimants unemployed because of it exhaust EB to think carefully about how FSB should be structured.

#### **What should be the duration of an FSB program?**

The answer to this question is similar to that of the previous one. If the program is considered primarily as insurance, UI durations should be increased about 3.5 to 5.1 weeks for every 1 percentage point rise in the IUR above the level for which the EB program is considered satisfactory. A 3.5-week increase would maintain constant exhaustion rates and a 5.1-week increase would maintain constant earnings replacement rates. This means that an FSB program would only be required during relatively severe recessions and that for most of these the program need only be of relatively short duration.<sup>50</sup>

An FSB program can also be considered as welfare; this rationale weakly supports a somewhat longer program. It has been shown that other programs would not have provided an adequate substitute for the FSB received by low-income households and that there is some weak evidence that the incidence of poverty among UI exhaustees is greater during a recession. No guidance, however, was provided on the proper length of such a program. This is a policy decision and requires an assessment of the trade-off between the increased income support and increased work disincentives of UI extensions.

#### **Can the disincentive effects of UI extensions be mitigated?**

Evidence presented in this report shows that each additional week of potential FSB adds at least 0.1 week to unemployment durations. This means that the FSB program added about one half of a percentage point to the national unemployment rate during the 1974–75 recession. Several suggestions have been proposed about ways in which these disincentives might be mitigated if a decision is made during a future recession to institute an FSB-type program. For example, it may not be desirable to extend benefits for all EB exhaustees. Additional eligibility requirements might be considered to reduce the cost of extensions and to try to reduce the disincentive effects of the additional weeks of UI benefits.

One suggestion is to limit benefits to individuals who have substantial prelayoff work experience.<sup>51</sup> Data from a simulation of the effects on recipient characteristics are presented in Table 10 for several such policies. The simulation focuses on variables which may provide some indirect evidence of reduced disincentive effects. The two demographic variables, sex and age, are used because disincentive effects may vary across such groups, being greater for women and for older individuals. The net wage replacement rate is reported because of the positive effect of wage replacement rates on unemployment duration. The percentage of FSB recipients having a spouse with earnings is reported because this variable may be positively related to disincentive effects. Finally, labor force status in March 1975 is reported as an indicator of postunemployment labor force attachment. The data reported in Table 10 show that the four simulated eligibility screens reduce caseloads and cost but have little effect on any of the other reported variables and presumably little effect on disincentives. Three of these screens require base period work experience for FSB in excess of that required for regular UI, and the fourth screen does not permit individuals who had exhausted EB prior to the implementation of FSB to receive benefits. Because some of these latter individuals had relatively long gaps between EB exhaustion and FSB receipt, it was thought that the principal effect of FSB on their behavior was only to draw them into the labor force in order to collect FSB benefits. In any event, eligibility screens based on work experience seem unlikely to reduce the disincentive effects of FSB.

The final simulated policy whose results are reported in Table 10 is to subject FSB benefits to the Federal income tax. The principal effect of this is to reduce the net wage replacement ratio from 65 to 60 percent and to reduce the proportion of recipients with a replacement rate above 60 percent from 52 to 42 percent. Thus, this policy might help mitigate the disincentive effect of increased duration although empirical tests of

TABLE 10. Simulated program and recipient characteristics under alternative FSB eligibility criteria and other selected policy options

	Policy options					Subject FSB benefits to Federal income tax
	1975 program	30 weeks in base year	40 weeks in base year	60 weeks in 3-year base	Not in FSB backlog	
Caseload, as percentage of 1975 program	100.0	76.3	63.5	82.8	85.7	100.0
Cost (including tax offset) as percentage of 1975 program	100.0	79.7	67.7	85.8	83.8	86.5
Mean age (years)	38.9	39.7	39.4	40.0	38.4	38.9
Percentage men	52.5	53.0	52.1	55.3	52.9	52.5
Percentage of net wage replaced by UI						
0-40	15.1	13.9	13.9	14.8	14.6	19.1
40-60	33.0	32.7	31.3	33.4	33.3	39.2
60 and over	51.9	53.4	54.8	51.8	52.1	41.7
Total	100.0	100.0	100.0	100.0	100.0	100.0
Mean	64.6	65.0	65.3	65.6	64.7	59.5
Percentage with earning spouse	37.0	37.1	39.0	36.6	37.3	37.0
Labor force status, March 1976						
Employed	31.2	31.4	33.6	31.8	31.7	31.2
Unemployed	46.7	48.1	45.8	48.0	48.0	46.7
Not in labor force	22.7	20.5	20.6	20.2	20.3	22.7
Total	100.0	100.0	100.0	100.0	100.0	100.0
Weighted sample size	6,825	5,207	4,146	5,651	5,849	6,280

SOURCE: Special tabulations from the MPR FSB study data tape.

this effect with the FSB sample produced statistically insignificant results.

Another policy that might reduce the work disincentive effects of UI extensions would be to impose stronger job search and job acceptance requirements on these recipients. This was done, in fact, during the latter part of the FSB program. Public Law 95-19, enacted in April 1977, continued the FSB program and, among other provisions, required the States to apply a uniform set of job search and job acceptance requirements instead of adopting State requirements for regular UI. These Federal requirements disqualified for the duration of their unemployment spell individuals who failed to accept suitable work, failed to apply for suitable work to which they were referred by the State, or failed to seek work actively. These requirements were generally more stringent than those in the regular State programs.<sup>52</sup>

Analysis of the effect of these requirements found that they had a substantial effect on the level of disqualifications, increasing the total by 78 to 287 percent.<sup>53</sup> Most of these disqualifications were for "not able to work" or "not available for work" but the refusal rate for suitable work also rose. The effect varied by State, being smallest in those States with eligibility and disqualification provisions in the regular UI program similar to those imposed on FSB. Thus, stiff job search and job acceptance requirements for UI extensions raise the rate of disqualifications and may help mitigate the problem of work disincentives.

#### How could FSB benefits be targeted more effectively on the poor?

If a major goal of future extensions is to alleviate poverty among UI exhaustees, it is inefficient to extend benefits to all exhaustees. Some targeting of benefits on the poorest recipients may be desirable. The effects of several possible methods of doing this are reported in Table 11. For each method, two measures of effectiveness are reported in addition to the impact on cost and caseload: the net wage replacement ratio and the distribution of program *benefits* by recipients' poverty status. This distributional measure differs somewhat from the concept where the distribution of *recipients* by poverty status was reported.

The first policy analyzed in Table 11 is the restriction of FSB eligibility to recipients who at the time of application have a household income below the Bureau of Labor Statistics lower living standard (about 1.8 times the poverty line). This policy would have had only a small effect on wage replacement ratios but would have significantly changed the distribution of FSB benefits. Almost 90 percent of program benefits would, under this option, have been paid to recipients with annual incomes below two times the poverty line, compared to the 64 percent actually paid to them in 1975. On the other hand, the second option—subjecting FSB benefits to the Federal income tax—would reduce wage replacement ratios but would have little effect on the distribution of after-tax benefits. Both of the

TABLE 11. Simulated program and recipient characteristics under alternative benefit computations and other selected policy options

	Policy options				
	1975 program	Lower living standard	Subject FSB benefits to Federal income tax	Means testing of benefits (benefit reduction rate)	
				.15	.25
Caseload, as percentage of 1975 program	100.0	69.4	100.0	97.0	89.6
Cost (including tax offset), as percentage of 1975 program	100.0	70.2	86.5	85.5	78.7
Percentage of net wage replaced by UI					
0-40	15.1	16.9	19.1	30.1	34.8
40-60	33.0	35.3	39.2	36.9	33.8
60 and over	51.9	47.8	41.7	32.9	31.4
Total	100.0	100.0	100.0	100.0	100.0
Mean	64.6	62.3	59.5	52.6	50.3
Distribution of program expenditures by poverty status of recipients' household (1975 income excluding FSB)					
0.0-0.5	17.1	23.3	16.8	19.8	21.4
0.5-1.0	19.4	27.3	20.2	22.1	23.6
1.0-1.5	14.5	21.0	14.8	15.8	16.4
1.5-2.0	13.1	16.9	13.2	13.2	12.9
2.0-3.0	17.8	9.8	17.7	16.0	14.7
3.0-4.0	9.1	1.4	8.7	7.0	5.8
4.0 and over	9.0	0.3	8.7	6.2	5.3
Total	100.0	100.0	100.0	100.0	100.0
Weighted sample size	6,806	4,427	6,280	6,723	6,723

SOURCE: Special tabulations from the MPR FSB study data tape.

last two options, reducing the weekly UC benefit by .15 or .25 times the sum of the spouse's earnings, rent, interest and dividends, would have reduced wage replacement rates considerably and shifted the distribution of benefits to lower income households. However, this shifting would not have been as large as that accomplished with the lower living standard eligibility screen.

Choosing among these options is difficult. The taxing option would be the easiest administratively because the UI system would not need to collect additional data to determine FSB eligibility and to calculate payments as it would for the other options. However, this policy would not significantly affect the distribution of benefits. Of the other two types of policies, the eligibility screen would probably be the easiest to administer, because there would be no question of recalculating the benefit periodically, and because precise measurement of income would only be necessary for individuals near the cutoff point. However, this absolute cutoff of benefits would create incentives to reduce the spouse's earnings to ensure UI eligibility. Despite this problem, use of an income eligibility screen appears to be the easiest and most effective way for FSB benefits to be targeted to the poor.

#### How can job search outcomes be improved?

Analysis of data from the FSB program showed that

FSB recipients who became reemployed suffered a substantial loss in their earnings. Wages on jobs held in November of 1977, about 3 years after the initial lay-off, were on the average about 10 percent lower in real terms than wages on the pre-UI job. This loss occurred for both real hourly earnings, which declined about 3 percent, and for hours worked, which declined about 6 percent. This average loss masked considerable variation in individuals' experiences; nearly one-third had jobs paying less than 75 percent of the pre-UI wage. Thus, there are good reasons to ask whether these job search outcomes could be improved in future recessions.

Unfortunately, analysis of the FSB recipient interviews also provided little guidance for improving these outcomes. No evidence was found supporting the hypothesis that increased UI durations led to increased postunemployment wages. For men, services provided by the Employment Service (ES) appeared to have had no effect, though women who used the ES had higher weekly wages. For women's hourly wages, however, the effect was insignificant, suggesting that the ES may have helped women to obtain full-time jobs who had been employed part-time before the unemployment spell.

The analysis showed that FSB recipient skill levels, by training and education, were roughly comparable to those of EB recipients, indicating that their long unemployment spells were probably due to the high unemployment rates during the 1974-75 recession,

rather than to a substantial lack of job skills. Furthermore, although education and training programs were found to have had a small positive effect on men's wages, no such effect was found for women.

### **How should the program be financed?**

The FSB program was funded in two ways. Until April 1977, funds were drawn from the Federal extended unemployment compensation trust fund. Following that date, general revenues were used. The financing of future FSB programs should, in our view, continue to be from general revenues. This method of financing would treat FSB in the same way as other Federal countercyclical programs and emphasize the Federal responsibility for national recessions. Furthermore, the use of general revenues would keep FSB benefits from being experience rated, a situation consistent with the idea that long unemployment spells during a recession result from macroeconomic factors rather than the decision processes of firms. Although not experience rating FSB could prove harmful by lessening the incentive for firms to recall their own workers, we do not believe this is particularly important in the case of the long-term unemployed who are eligible for emergency extensions.

### **What alternatives to FSB are available?**

If, in the future, we are faced with a recession severe enough to warrant consideration of an FSB-type program, two alternative programs should also be considered. First, if the principal goal of an FSB-type program is income maintenance, the impact of any change in the welfare system between now and then should be examined. Current welfare programs would not provide an adequate income for UI exhaustees under most definitions of adequacy. But an expanded, more generous welfare system would make this conclusion debatable. For example, we showed that the Carter administration's 1977 welfare reform plan, had it been in effect during the period in which FSB payments were made, would have halved the proportion of UI exhaustee households with incomes below one half of the poverty level, excluding FSB payments. An FSB program would, in this case, have an additional anti-poverty effect, but this argument for FSB would be less strong than it is now.

Second, a public service employment (PSE) program for UI exhaustees should be considered as an alternative to UI extensions. While the choice between these two programs is partly one of congressional preference, several points in favor of UI extensions can be raised. First, starting up a major PSE program would probably take longer, so its impact might be slower than that of UI extensions. Second, phasing out a PSE program

may be more difficult than phasing out an FSB program, particularly since any time limit placed on PSE jobs is likely to be longer than any placed on UI benefit extensions. Third, the cost of a PSE job slot is probably higher than the cost of an FSB benefit payment, given that the value of output from PSE jobs may be low and given the relatively sizable rate of fiscal substitution for PSE jobs.<sup>31</sup> Fourth, any argument for PSE that emphasizes the training aspect of employment may not be particularly important for UI exhaustees because most of them already have substantial job experience. Finally, it may not be possible to create PSE jobs on a scale that would equal the past FSB program and an attempt would likely exacerbate the timing problems mentioned above. Thus, in future recessions PSE jobs are likely to be only a partial substitute for UI extensions, if they are judged necessary at all.

### **Notes**

1. U.S. Committee on Economic Security report to the President, 1935.
2. Hearing on H.R. 6635, Senate Finance Committee, 76th Congress, first session, 1939.
3. House Report No. 615, 74th Congress, first session, 1945.
4. Hearings before the Senate Committee on Finance, 1935. Statement of Professor Wile, "Executive Director of the Committee on Economic Security."
5. Eveline M. Burns, *The American Social Security System* (Boston, Houghton Mifflin Company, 1949).
6. Ewan Clague, "Social Security in a Stable Economy." In *Papers and Proceedings of the American Economic Association*, January 1949.
7. House Report No. 615, 74th Congress, first session, 1935.
8. Joseph M. Becker, *In Aid of the Unemployed* (Baltimore, Johns Hopkins University Press, 1965).
9. Prior to implementation of the TEUC program several States had adopted EB provisions in their own UI laws. Such State extensions were generally subsumed under TEUC.
10. Senate hearings (Finance Committee) 94th Congress, first session, June 1975.
11. Senate Hearings (Finance Committee) 85th Congress, second session, 1958.
12. "The Role of Unemployment Resources Today . . . And Tomorrow," *Employment Security Review*, August 1962, p. 33.
13. Senate hearings (Finance Committee) 94th Congress, first session, June 1975.
14. An example of this would be a worker who chooses job stability over high wages.
15. Hamermesh, *Jobless Pay and the Economy*, (Baltimore, Johns Hopkins University Press, 1977).
16. If the potential wages UI recipients can expect

to receive decline with the duration of unemployment, then individuals collecting FSB may have higher wage replacement ratios than otherwise similar individuals whose unemployment spells are just beginning. But this issue would be considered more appropriately in relation to the question of how wage replacement ratios are measured rather than to the question of direct FSB effects.

17. W. Nicholson and Wayne Corson, *The Effect of State Laws and Economic Factors on Exhaustion Rates for Regular Unemployment Insurance Benefits: A Statistical Model*, Unemployment Insurance Occasional Paper 78-7. U.S. Department of Labor (1978).

18. R. Ehrenberg and R. Oaxaca, "Unemployment Insurance Duration of Unemployment and Subsequent Wage Gain," *American Economic Review*, vol. 66, December 1976.

19. K. Classen, "The Effects of Unemployment Insurance and Job Search," (Mississippi State University, Department of Economics, 1975). (Mimeographed.)

20. R. Crosslin, "Unemployment Insurance and Job Search," Department of Economics, Mississippi State University, 1975. (Mimeographed.)

21. Ibid.

22. J. M. Barron and W. Mellow, "Search Effort in the Labor Market," *Journal of Human Resources*, vol. XIV (Summer 1979), pp. 389-404.

23. A. Holen, "Effects of Unemployment Insurance Entitlement on Duration and Its Search Outcome," *Industrial and Labor Relations Review*, vol. 30 (July 1977), pp. 445-50.

24. W. Corson and others, *Final Report, A Study of Recipients of Federal Supplemental Benefits and Special Unemployment Assistance*, MPR Project Report Series 77-01 (Princeton, N.J., Mathematica Policy Research, Inc., 1977).

25. J. Alan Brewster and others, *Final Report, Follow-up Study of Recipients of Federal Supplemental Benefits*, MPR Project Report Series 78-15 (Princeton, N.J., Mathematica Policy Research, Inc., 1978).

26. For example, Von Furstenberg (1976) found that differences between recession period and "full employment" UI benefits (regular plus EB) were less than 22 percent of the size of the decline in Federal tax revenues during each of the recession years since 1958. Similar results are suggested by the data in Table 3.

27. A third issue, the macroeconomic effect of financing FSB or other discretionary fiscal policy, will not be discussed here because, to a first approximation, FSB would be a little different from other policies.

28. The table provides data on both the actual Federal budget deficit and the "full employment" deficit. The latter concept adjusts the actual deficit for the effect of the business cycle itself on the expenditures and tax collections and is therefore a better measure of discretionary fiscal policy.

29. Because of the way in which UI benefit years are defined, some individuals in the FSB backlog had lost their jobs well before 1974. The Mathematica sample of FSB recipients contains a small number of individuals who started a benefit year as early as 1971. For these individuals, FSB represented a pure windfall.

30. See, for example, Kaitz (1970), who points out that there are two opposite biases in the CPS figures. Biasing estimated spell lengths downward is the fact that the CPS does not measure completed spells but rather spells in progress. Biasing estimated spell lengths upward is the fact that the CPS oversamples those with long spells. During periods when average spell lengths are increasing, this second effect is likely to become the important bias.

31. Only FSB payments to regular UI recipients are included in these data. FSB recipients who collected their initial benefits under the Unemployment Compensation for Federal Employees or Unemployment Compensation for Ex-Servicemen programs have been excluded.

32. As an approximation to the theoretical concept of the probability that UI recipients will exhaust their benefits, this calculated exhaustion ratio is subject to biases arising from aggregation, seasonality, the changing composition of the pool of UI recipients, and the complex effects that accompany changes in UI duration provisions. Aggregate data must be used, however, because theoretically correct exhaustion probabilities from survey data are not available on a regular basis.

33. The fact that FSB ended at different times in different States and that it consisted of two separate 13-week extensions poses particular difficulties for this calculation.

34. In Brewster and others (1978), the FSB exhaustion rate was reported as 52 percent.

35. Joseph E. Hight, "Insured Unemployment Rates, Extended Benefits and Unemployment Insurance Exhaustions," *Proceedings of the Industrial Relations Research Association*, vol. 28 (December 1975), pp. 242-49.

36. Walter Nicholson and Walter Corson, "Effect on Exhaustion Rates."

37. This extension ignores the waiting week, but that omission does not affect our results substantially. The appendix to this paper presents results that take account of the waiting week.

38. In fact, even if the incidence of poverty is higher during recessions, we might argue that if we help poor exhautees during recessions, we should do the same when there is no recession. Doing this, however, would alter the UI program's insurance orientation on a permanent rather than temporary basis.

39. A detailed discussion of the method used to compute eligibility and benefits is contained in Corson and others (1977), Appendix 8. An analogous method

was used to compute eligibility and benefits for the welfare reform proposal in this chapter.

40. SSI is also available to the blind and disabled; however, it was assumed that FSB recipients, given their past work experience, were unlikely to meet the SSI requirements for blindness or disability. This assumption was also used in the eligibility calculations for the welfare reform proposal.

41. This analysis is reported in Corson (1978).

42. Data on the exhaustee study can be found in Nicholson and Corson (1976).

43. Data for the exhaustee sample are for white recipients only. This group was chosen as being more representative of UI recipients in general than the entire exhaustee sample would have been; the study's concentration on four cities led to a high proportion of black recipients in the sample. For both exhaustees and FSB's, we have included imputed transfer benefits in income because that measure of poverty status was more readily available. This makes little difference to the comparison.

44. Here we are using data from the four-city exhaustee study as representing the recession case while for the household income comparison we used it as the nonrecession case. The argument for this dual usage is that exhaustion occurred prior to the recession but the post-exhaustion period occurred primarily during the recession.

45. Stephen Wandner, "Unemployment Insurance and the Duration of Unemployment in Periods of Low and High Unemployment" (Unpublished paper, Unemployment Insurance Service, U.S. Department of Labor, 1975).

46. These figures overstate somewhat the percentage of households with incomes above the poverty line because they assume full utilization of all other transfer benefits. Twenty-two percent of the households actually had incomes below the poverty line. These data and those presented later also ignore possible behavioral responses by FSB households to the loss of UI benefits.

47. These data include actual but not imputed transfer payments. The bonus value of food stamps was not included in Table 9 tabulations but was included in those presented above. This makes little difference for the comparison.

48. The earnings replacement rate is defined as the sum of UI benefits divided by the after-tax earnings losses experienced over the entire period of unemployment.

49. The IUR rose about three points during the 1974-75 recession, so some small extension beyond EB would have been appropriate at that time.

50. Perhaps the goals of FSB-type extensions could be achieved by having a variable number of weeks of EB benefits triggered more or less automatically in response to labor market conditions.

51. Another rationale for this restriction is that this group should be given greater insurance than individuals with little work experience and this already occurs in the variable duration of States.

52. The definition of suitable work in this provision was broader than that used in the regular State programs.

53. These results were reported in Felder and West (1978) and Felder and Pozdena (1978).

54. For a discussion of these issues see Garfinkel and Palmer (1978), pp. 6-11.

## Appendix: Earnings Replacement Rate Calculations

In the body of the report we indicated that the earnings replacement rate for an individual was:

$$r = (1 - p)WRR + pWRR \left( \frac{D}{S} \right) \quad (1)$$

where

$r$  = replacement rate

$p$  = probability of exhaustion of benefits

$D$  = potential duration of benefits

$S$  = unemployment duration if benefits are exhausted

WRR = UI weekly benefit amount divided by after-tax earnings in the pre-UI job.

We also indicated that  $p$  and  $S$  were functions of the unemployment rate ( $u$ ) and duration ( $D$ ).

To investigate the relationship between changes in the replacement rate, the unemployment rate and potential duration we can derive the expression for the differential of  $r$  with respect to  $u$  and  $D$ :

$$\begin{aligned} dr &= \frac{\partial r}{\partial u} du + \frac{\partial r}{\partial D} dD \\ &= \left[ -WRR \frac{\partial p}{\partial u} + WRR \left( \frac{D}{S} \right) \frac{\partial p}{\partial u} \right. \\ &\quad \left. - p \cdot WRR \left( \frac{D}{S^2} \right) \frac{\partial S}{\partial u} \right] du \\ &\quad + \left[ -WRR \frac{\partial p}{\partial D} + WRR \left( \frac{D}{S} \right) \frac{\partial p}{\partial D} \right. \\ &\quad \left. + p \frac{WRR}{S} - p \cdot WRR \left( \frac{D}{S^2} \right) \frac{\partial S}{\partial D} \right] dD \end{aligned} \quad (2)$$

If we then ask what change in potential duration ( $D$ ) will keep the earnings replacement rate constant with an increase in the insured unemployment rate ( $u$ ) of 1 percentage point, we set  $du = 1$ ,  $dr = 0$ , plug in values for the other variables and compute  $dD$ .<sup>1</sup> Estimates are available from prior studies for each of these variables

except for  $S$ ,  $\partial S/\partial u$  and  $\partial S/\partial D$ .<sup>2</sup> Estimates for these parameters can be computed if we assume that the distribution of unemployment spells is an exponential with mean  $1/\alpha$ . Then it can be shown that  $S = D + 1/\alpha$ . For our calculation we have assumed that the mean duration of unemployment spells is four weeks, hence,  $S = 30$  weeks. To compute  $\partial S/\partial u$ , we notice that  $\partial S/\partial u = \partial(1/\alpha)/\partial u$ . An estimate for this value is 1.2.<sup>3</sup> Finally,

$$\partial S/\partial D = \frac{1 + \partial(1/\alpha)}{\partial D}$$

ergo we have set  $\partial S/\partial D$  equal to 1 for the computation. The differential  $\partial(1/\alpha)/\partial D$  is the distinctive effect of increasing  $D$ , and if it were taken into account  $D$  would need to be increased further to keep  $r$  constant. Instead, we have assumed that we are not interested in replacing earnings lost because of the disincentive effect, and we have set  $\partial(1/\alpha)/\partial D$  equal to zero.

Using the numbers in the previous paragraph we find that  $dD$  equals 5.1 weeks; if the IUR rises by 1 percentage point, duration must rise by 5.1 weeks to keep earnings replacement rates constant for individuals.<sup>4</sup> While this number represents our best estimate of  $dD$ , the values used in the calculation for some of the parameters are subject to error. In particular, alternative estimates were available for  $\partial p/\partial u$  and  $\partial S/\partial u$ .<sup>5</sup> Figure A-1 reports values for  $dD$  over a range of estimates of  $\partial p/\partial u$  and  $\partial S/\partial u$ . These estimates of  $dD$  range from 4.2 to 7.3 weeks. While this range is fairly large, it does not substantially affect the conclusion reached in the chapter—namely, that FSB overcompensated for the effects of the recession. Finally, the calculations presented above ignore the effect of the UI waiting week on the earnings replacement rate. To include this, the first term in the expression for  $r$  should be multiplied by  $D/(D + 1)$ . If this is done, two terms are added to the expression for the differential of  $r$  and the resulting estimated for  $dD$  is raised slightly, to 5.4 weeks.

Another possibility is to compute what happens to the earnings replacement rate if the exhaustion rate is held constant when  $du = 1$ . To compute this, recall that

$$dp = (\partial p/\partial u)du + (\partial p/\partial D)dD,$$

and accordingly substitute it into equation (2). When  $du = 1$  and  $dp = 0$  (i.e., the exhaustion rate is constant),  $dD = 3.5$  and we get

$$dr = -p(\text{WRR}) \cdot (D/S^2) \cdot (\partial S/\partial u) + 3.5[p(\text{WRR}/S) - p(\text{WRR}) \cdot (D/S^2) \partial S/\partial D]$$

If we assume  $\text{WRR} = .65$  and keep the same values for the other variables, we find that  $dr = -.003$  when the exhaustion rate is held constant. That is, a policy that held exhaustion rates constant during recessions would have resulted in a fall in the earnings replacement rate of .003, which is to say 3 percent for each 1 percentage point increase in the IUR.

### Notes to Appendix

1. Notice that when  $dr = 0$  the expression in (2) is independent of  $\text{WRR}$ .

2. For the calculation we have assumed that  $p = .27$  and  $D = 26$ . Values for  $\partial p/\partial u$ , .0482, and for  $\partial p/\partial D$  —.0139, were computed from a study of exhaustion rates (Nicholson and Corson, 1978, Table III.7).

3. Earlier in this report we stated that the derivative of duration with respect to the unemployment rate was 0.93. This can be converted to the derivative of duration with respect to the insured unemployment rate by multiplying by 1.33 (Nicholson and Corson, 1978, 106).

4. Note that the aggregate compensation rate would not be equalized because  $\text{WRR}$  changes as the mix of the unemployed changes.

5. Alternative estimation techniques used in the exhaustion rate study provided estimates for  $\partial p/\partial u$  that ranged from 0.275 to 0.0475. The 0.0475 estimate was selected as the best because the effect of the State UI system on the measurement of the IUR was controlled for best in the regression that produced the 0.0475 estimate. For FSB recipients  $\partial S/\partial u$  was estimated to be 2.1 for males. The 1.2 estimate was chosen as better because it was derived from a regression on all unemployed individuals, not just those experiencing long unemployment spells.

FIGURE A-1. Increase in weeks of potential duration required to keep earnings replacement rate constant in response to a 1 percentage point increase in IUR.

		$\partial p/\partial u$		
		.0275	.0375	.0475
$\partial S/\partial u$	1.2	4.2	4.6	5.1
	1.6	5.2	5.6	6.1
	2.1	6.5	6.9	7.3

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# A Proposal for a New Job Security System With Three Tiers of Unemployment Insurance

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**T**his report outlines a proposal to restructure the current unemployment insurance (UI) program by placing it within a broader Job Security System (JSS).<sup>1</sup> This JSS would further include both a program of unemployment assistance (UA) and employment and training services; it would deal with income support and job search needs in a comprehensive and consistent manner.

The prime objective of the JSS is to help the unemployed individual obtain or regain suitable employment. To that end, the JSS works with the recipient to assist job search, to analyze employment problems, and to recommend approaches for overcoming them. As the duration of unemployment increases, the services for overcoming it intensify.

The UI scheme within JSS consists of three successive tiers, each providing compensation for up to 13 weeks of unemployment. Each tier has its own qualifying requirements and eligibility conditions. State and Federal UI payroll taxes continue to finance all UI payments, but the State-Federal mix varies for each tier.

The job search services provided to UI claimants are adapted to the type of unemployment involved, the needs of the individual, the circumstances of the labor market, and the duration of the individual's unemployment. The latter is taken into account formally as the claimant moves from one tier to the next.

Unemployed persons ineligible for UI or UI exhaustees may receive weekly UA payments provided they can meet the required income test. UA is financed entirely by Federal general revenues. Appropriate job search and related vocational adjustment services also apply to UA recipients. Persons who now receive benefits from the Aid to Families with Dependent Children (AFDC) program and who are required to be available for work or training would be placed on UA instead in the JSS scheme. In this way, they are dealt with as labor force participants and their income support is channeled through a system that considers their eligibility on a week-to-week basis with respect to their labor force status and job search activity.

## The Potential Clientele of the JSS

The potential clientele of the JSS consists of all unemployed and underemployed persons. Figure 1 breaks down this population for 1977 by reason for unemployment or underemployment.<sup>2</sup>

Most persons eligible for UI are workers who are on temporary or indefinite layoff or who have lost their jobs (job losers). Workers who voluntarily leave jobs without good cause (job leavers) and job losers who are discharged for misconduct are normally disqualified for UI, at least for a waiting period. Compulsorily retired workers who continue to seek other work are also counted as job losers. Most workers on layoffs are scheduled for recall to their jobs within a specified, usually limited, period; long-term or indefinite layoffs are not uncommon during recessions.<sup>3</sup>

In 1977, over half of the unemployed counted by the monthly Current Population Survey (CPS) were ineligible for UI because they were job leavers, new entrants, or reentrants to the labor force. Consistent with this, less than half of all unemployment that year was insured unemployment. In recession year 1975, workers who had lost their jobs, including those on layoff, accounted for over half of the unemployed; insured unemployment that year also exceeded half of all unemployment.

About 60 percent of all job losers in 1977 were adult men (age 20 and over), and over 30 percent were adult women. Women outnumbered men among adult job leavers, and youths (age 16 to 19) accounted for nearly 20 percent of this group. Almost half the reentrant unemployed were adult women, and about one-fourth were youths. Youths made up over three-fourths of all new entrant unemployed.

## The Three-Tiered UI Program

The structure of the proposed three tiers of the UI

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FIGURE 1. Potential clientele of Job Security System and percentage distribution of the unemployed by categories: 1977 annual averages

Unemployed <sup>1</sup> (6.9 million—100 pct)					Underemployed workers <sup>2</sup>	
Previously employed (58 pct)			Not previously employed (42 pct)		Workers on temporarily reduced work schedules	Workers seeking other jobs
Jobholders on layoff (12 pct)	Other job losers (33 pct)	Job leavers (13 pct)	Reentrants (28 pct)	New entrants (14 pct)		

<sup>1</sup> Based on *Employment and Earnings*, January 1978, Household Data, Annual Averages, Table 13, p. 147. Percentages are rounded to whole percent.

<sup>2</sup> These include workers employed part time (less than 35 hours a week) for economic reasons (about 3.5 million in 1977) who presumably would have worked full time if enough work had been available. About 30 percent of them usually worked full time but were temporarily on reduced schedules; others reported they could find only part-time work or had jobs in which work was slack most of the time (*ibid.*, Table 33, p. 163).

Other underemployed workers include those who are employed below their capabilities. No data are available for this category as such. Data from the May 1976 Current Population Survey reported by Carl Rosenfeld in "The Extent of Job Search by Employed Workers" (*Monthly Labor Review*, March 1977, Table 4, p. 60) indicate there were 3.3 million employed workers seeking other jobs mainly for the following reasons (percentages rounded to whole percent): higher wages or salaries, 34 pct; better hours or working conditions, 11 pct; better advancement opportunities, 10 pct; current job ending, including temporary or seasonal job, 11 pct; use skills, 9 pct; other reasons, 25 pct.

program within JSS is based on the assumption that after 3 months, or 13 weeks, of UI benefits it is appropriate to reevaluate a claimant's reemployment prospects. Each evaluation considers existing labor market conditions and the claimant's employment attributes, job search experience, and prospects. Evaluations may be repeated within a 13-week period if necessary.

At the end of each tier, the claimant's eligibility for another tier of UI benefits is measured on the basis of past employment. Within each tier the duration of benefits allowed is a uniform 13 weeks, but the number of tiers allowed varies with prior employment. The maximum extent of UI protection for the most qualified claimants is 39 weeks; beyond this, any further income support is supplied as UA.

### Qualifying requirements for the three tiers

**Tier 1.** Under this proposal, State laws set the requirements for Tier 1 benefits covering short-term unemployment, but Federal law specifies that they may not require less than 15 or more than 20 weeks of employment. Although a direct weeks-of-work measure seems preferable, a test based on a multiple of high-quarter earnings is an acceptable equivalent, provided the multiple is between 1.2 and 1.5 times high-quarter earnings.<sup>4</sup>

For the week to be credited toward the qualifying test for any tier, wages earned in that week must be no less than 20 percent of the average weekly wage earned in covered employment in the State. In the high-quarter multiple test, high-quarter wages must be at least 13 times that weekly minimum wage. The base period used to measure qualifying employment or earnings should be the 52 weeks immediately preceding the first claim. When the base period lags behind the start of the benefit year and a claimant fails to meet the requirement, the base period is adjusted so as to include the claimant's most recent employment.<sup>5</sup>

**Tier 2.** When claimants exhaust Tier 1 benefits and

are still unemployed, they must file for Tier 2 to establish eligibility for additional UI. Filing for Tier 2 involves a review of the claimant's job search efforts and their scope. This review is required because the claimant's unemployment has become a more serious problem and because the definition of "suitable" work may need some modification.

To qualify for Tier 2 benefits, claimants must have worked at least 26 weeks in the base period or earned at least twice their high-quarter wages in that time. Workers unable to qualify for Tier 2 may be able to qualify for UA if they are from low-income households; they would also be subject to a more intensive review and modification of their job search plans and efforts.

**Tier 3.** If unemployment continues beyond the end of Tier 2, the claimant must file for Tier 3 to establish further UI entitlement. The formal filing process emphasizes increased concern about the claimant's now long-term unemployment and assists the proper adjustment of the claimant's job search.

To qualify for Tier 3 benefits, the claimant must have worked for at least 39 weeks in the base period, or at least 52 weeks in all during the base period and the year preceding it. High-quarter multiple equivalents are also allowed: total base-period earnings equal to at least three times high-quarter earnings or total earnings for the 2 years preceding the first claim equal to 4 times high-quarter earnings.

### Disqualifications

Under JSS, claimants are subject to benefit denials or suspensions for voluntarily leaving work without good cause or for a misconduct discharge. This type of job separation disqualifies the claimant for 13 weeks; at the end of this time the claimant may file for benefits but must meet Tier 2 qualifying requirements. If a disqualifying job separation occurs during the benefit year, that is, after the claimant has already drawn some UI benefits, the suspension still applies for 13 weeks,

and any remaining Tier 1 benefits are lost. Refusal of a suitable job also leads to benefit suspension, but this lasts no more than 6 weeks if the refusal occurs in Tier 1. Refusals after Tier 1 result in 13-week suspensions but no loss of benefit entitlement.

As under current provisions, claimants must be able to work and be available for work each week they claim benefits. Failure without good cause to follow the job search plans developed in consultation with JSS staff results in disqualifications on the same basis as for refusal of suitable work.

### **Weekly benefit amount**

The weekly benefit amount (WBA) under the three-tier UI scheme is set by State law subject to Federal requirements.<sup>6</sup> The WBA paid to each claimant, excluding dependents' allowances, must be between one-half and two-thirds of the claimant's average weekly wage up to a maximum that must be no less than two-thirds of the statewide average weekly covered wage. The claimant's average weekly wage is based on those base-period weeks with sufficient earnings to count toward the qualifying requirement (i.e., 20 percent of the statewide average weekly covered wage). States that use an earnings equivalent to measure base-period employment may calculate the claimant's average weekly wage as high-quarter wages divided by 13. States may supplement a claimant's basic WBA with allowances for dependents' but the total weekly benefit may not exceed 75 percent of the claimant's average weekly wage.

### **Partial benefits**

Workers who earn less than 75 percent of their usual full-time wage may receive a partial benefit. These include workers placed on a temporarily reduced work schedule, workers on layoff who take temporary part-time work, and workers who accept new full-time employment at substantially lower pay. The partial benefit is available only in Tier 1 for part-time workers and only in Tier 3 for full-time workers.

The partial benefit payable is equal to the WBA for total unemployment less a fraction (no greater than two-thirds) of the claimant's current earnings. Partial benefits paid reduce a claimant's benefit entitlement proportionately. Thus, if the partial benefit is half the full WBA, 1 week of partial benefits counts as half a week against the claimant's benefit entitlement.

### **Financing of UI**

The costs of all UI benefits paid under the three-tier system are financed out of State and Federal UI payroll taxes, as is now the case.<sup>7</sup> The Federal tax continues to finance the program's administrative costs and a

loan fund. The administrative costs include the costs of job search services provided to UI claimants.

*Tier 1.* Tier 1 benefits, including partial benefits, are financed entirely by State UI taxes. It is presumed that nearly all States will experience-rate the financing of these short-term benefits. To a large extent these benefits will be paid to cover temporary layoff unemployment, thus serving to preserve the employer's work force. Through partial benefits, employers may also be encouraged to use worksharing to spread the effects of temporary business slumps among larger groups of workers rather than concentrate total layoffs among a smaller number. It appears to be appropriate to finance Tier 1 benefits through experience-rated taxes, because much of the short-term unemployment that is covered under Tier 1 is attributable to employers' actions and decisions.

*Tier 2.* The financing of Tier 2 benefits is split evenly between State and Federal UI taxes. As unemployment persists for individual claimants, individual employer responsibility for benefit costs becomes increasingly remote. The problem of many claimants in this tier is likely to be more than a temporary layoff, although some layoffs may run longer than 3 months, especially during recessions. Tier 2 unemployment is also more likely to reflect regional or national economic factors beyond the control of individual employers and States. For these reasons, States are relieved of a portion of the cost burden of Tier 2 benefits. They have the option of experience-rating the State share of Tier 2 benefit financing or pooling these costs evenly among all employers. National pooling of the Federal share of Tier 2 benefit costs also serves to relieve States of some of the burden of recession UI costs. All States gain some relief, though some more than others.

*Tier 3.* All benefit costs in Tier 3 are financed out of the Federal UI tax. The long-term unemployment that places a claimant in this tier is well beyond the responsibility of an individual employer. It is also likely to be beyond the individual State's ability to control or eliminate such unemployment, especially in recessions. For these reasons, total national pooling of such costs appears to be a reasonable approach. Moreover, national pooling of Tier 3 benefit costs and half of Tier 2 benefit costs may overcome many if not all of the financing problems that cost equalization-reinsurance grant proposals are designed to deal with.

### **Unemployment Assistance**

Unemployed members of the labor force who are not eligible for UI and who need income support may apply for UA. UA would replace the welfare payments now

provided through AFDC or through general State or local relief to unemployed workers. Others not presently on welfare, such as job seekers who have no children, might also be eligible for UA. UA recipients are given close job search assistance, but the definition of a "suitable" job is broader for UA recipients than for UI recipients; suitable jobs would here include public service employment financed through the Comprehensive Employment and Training Act (CETA).

### **Eligibility**

UA recipients must meet the following requirements.

1. The applicant's household income must be below a certain level. (No attempt is made here to specify this level.)
2. The applicant must be currently available for work, able to work, seeking work, and registered for jobs or training at the public employment service.
3. The applicant must give evidence of recent labor force attachment in any one or more of the following ways:
  - a. at least 15 weeks of employment during the past year with earnings in each week equal to at least 15 percent of the statewide average weekly covered wage;<sup>8</sup>
  - b. at least 15 weeks of registration for work at the public employment service during the last year;
  - c. at least 30 weeks of attendance at a senior high school or institution of higher education, or in technical or vocational training during the past year, provided the education or training was completed satisfactorily.

Applicants may combine weeks of employment and employment service registration to satisfy the 15-week requirement. They may substitute education and training time for employment or employment service registration time at the rate of 2 weeks of education and training for 1 week of employment or registration. No more than 8 weeks of employment or registration may be replaced in this way, however. UI exhaustees are automatically able to meet the employment test because it is less stringent than the Tier 1 test.

Disqualifications for UA are similar to those for UI. UA payments are suspended for 13 weeks for a claimant's voluntarily leaving work without good cause or discharge for misconduct. They are suspended for 6 weeks for the first refusal of a suitable job or training opportunity and for 13 weeks for subsequent refusals.

Mothers of children presently supported by AFDC who are required under the Work Incentive (WIN) program to register with the public employment service will be able to qualify for UA after 15 weeks of such registration. Government-assisted child care while

mothers are working, training, or seeking work is an important factor in sustaining their active labor force participation.

Unemployed new entrants and reentrants to the labor force could also qualify for UA through the education and/or registration routes.

### **Weekly UA amount**

For the UA recipient who has exhausted UI benefits, the weekly UA amount is 90 percent of the former UI WBA, including any dependents' allowances. UA recipients who could not qualify for UI but had 15 or more weeks of prior employment receive 90 percent of what the UI WBA would have been, taking that as base-period employment. For others, the weekly UA amount is equal to the basic minimum UI WBA payable in the State, plus dependents' allowances.

There will be problems in adjusting UA levels when current AFDC payments are higher than proposed UA payments; the intent of the program is that UA should pay less than UI and more than AFDC. A transition period may be required, in which the higher of UA or AFDC would be payable.

### **Partial UA**

A UA recipient who takes employment providing weekly earnings of less than 1.5 times the basic weekly UA amount may still draw a partial UA payment. The full UA amount is reduced by two-thirds of the amount earned.

### **Duration of UA**

As long as the recipient is in the labor force, actively seeking work, and meeting all other requirements, the recipient continues to receive UA. It should be stressed, however, that continued failure to find work even after substantial reduction of job and wage expectations, and failure to find placement in a public service job or to benefit from training or some other remedial assistance, must be construed as evidence that the UA recipient is not employable. At that point, the recipient may be judged no longer eligible for UA. As a general rule, except during recessions, a person's unemployment for much more than 1 year should make necessary a strong, specific justification for the continued assumption of employability.

### **Financing and administration**

The costs of UA, including administrative costs, are financed by appropriations from Federal general revenues. UA is administered by State JSS agencies as agents of the Federal Government.

## Treatment of JSS Clientele Categories

It is useful to review the proposed treatment of particular groups under JSS in order to show how UI, UA, and the job search services would work together. This review proceeds with the categories shown in Table 1 but goes on to further subdivisions.

### Unemployed but previously employed

**Jobholders on layoff.** These workers may file for and draw Tier 1 UI benefits if they meet the minimum qualifying requirements. Those who do not may qualify for unemployment assistance (UA); their registration and job search requirements are the same as for the UI claimants.

1. If recall is scheduled to take place within 30 days of the layoff, the worker need not register for work or actively seek other employment during this period to maintain UI eligibility. The worker decides whether or not to use the job search service.

2. If recall is expected after 30 days but within 90 days, the same conditions apply, but the worker's recall status is reconfirmed with the employer after 30 days and again after 60 days.

TABLE 1. National estimates of benefit costs and claimants under existing UI programs and the proposed three-tier program: 1980 (dollar estimates in millions; others in thousands)

	Unemployment rate assumed	
	6.6 percent	7.5 percent
Persons with unemployment—total	20,943	22,384
Eligible for regular UI benefits	9,086	9,913
Eligible for Tier 1 benefits	8,877	9,690
First payments		
Regular UI program	7,629	8,548
Extended benefits	1,640	2,059
Exhaustions		
Tier 1 benefits	7,354	8,268
Tier 2 benefits	3,066	3,700
Tier 3 benefits	1,372	1,700
Exhaustions		
Regular UI program	1,643	2,062
Extended benefits	954	1,252
Exhaustions		
Tier 1 benefits	3,253	3,901
Tier 2 benefits	1,492	1,875
Tier 3 benefits	705	924
Benefits paid		
Regular UI program	\$11,256	\$13,139
Extended benefits	1,587	2,039
Total	\$12,843	\$15,178
Benefits paid		
Tier 1 benefits	\$7,580	\$8,668
Tier 2 benefits	3,387	4,140
Tier 3 benefits	1,578	1,986
Total	\$12,545	\$14,794

3. If recall is not expected within 90 days, or if the layoff is or becomes indefinite, workers who are to receive UI must register for work and have their job prospects analyzed. A claimant must be available for temporary part-time work or alternative full-time employment if the job is suitable. If the layoff continues beyond 60 days and remains indefinite, a job search plan is prepared and carried out. If local labor market conditions are unfavorable, however, that step may be postponed until Tier 1 benefits are exhausted. Workers in this category who exhaust their Tier 1 benefits and continue to be unemployed are subsequently treated as job losers (as are UA recipients after 13 weeks).

**Job losers.** Workers who are involuntarily separated from their jobs, were not discharged for misconduct, and can satisfy the minimum qualifying requirement are eligible for Tier 1 UI benefits. They must meet all the usual conditions: availability for work, registration with the employment service, regular reporting to file claims, and active seeking of work. Within the first few weeks of filing, reemployment capacity and prospects are analyzed, and these workers are sorted into two groups, the "prepared" and the "unprepared."

**The "prepared jobseeker."** These are workers with skills and experience that are in demand in the local job market. They could reasonably expect to find suitable jobs in the next 8 to 10 weeks. They are directed to job search services that can be helpful—both the public employment office and outside services. Some may have already located jobs that will start during this period; they are treated in the same manner as Tier 1 claimants on temporary layoffs.

If unemployment continues for more than 8 to 10 weeks, the worker's job prospects are again reviewed and reevaluated. The worker may need more help with the job search, particularly with search method. Those who appear to have personal problems impeding job search may need supportive counseling. The worker may be urged to reconsider job and wage expectations in the light of current labor market conditions. It may be too early to press a "prepared" worker to lower expectations, but the possibility should be discussed.

Refusal, without good cause, to accept a suitable job offer or to follow up on a referral to a suitable job is grounds for disqualification from UI benefits. Evidence of unreasonable restriction on availability for work or of inadequate job search is also grounds for benefit suspension.

A job loser who exhausts Tier 1 benefits may qualify for Tier 2. A more intensive review of job prospects and employment service needs takes place. A new or revised job search plan is prepared and carried out. The employment service may urge the worker to lower job expectations and may press harder than in Tier 1. The

approach, however, must be positive and reasonable, and there must be no harassment of the claimant.

If the job market outlook is temporarily bleak, the claimant is encouraged to consider taking temporary, including part-time, work until prospects improve. The claimant is not *required* to take such employment while still drawing Tier 2 benefits but may be increasingly pressed to do so as time goes on.

A "prepared" claimant whose unemployment continues beyond Tier 2 may qualify for Tier 3 benefits. The job search conditions become more demanding.

The claimant's job readiness is reappraised when Tier 2 benefits are exhausted or Tier 3 benefits begin. If the claimant's skills and experience are still considered marketable, the unemployment is probably due to a prolonged recession. The claimant may be referred to temporary, including part-time, jobs. These jobs may not conform to the claimant's prior type of work or earnings, but they must be suitable in all other respects. They may include temporary public service jobs established during recessions. Failure to accept such jobs without good cause disqualifies a claimant from further benefits in Tier 3.

Claimants not appraised as still "prepared" to work are then potential candidates for vocational adjustment services (training, etc.). Such claimants thereafter are treated as "unprepared" jobseekers.

Before reaching Tier 3, any "prepared" unemployed workers who wish to explore possibilities for retraining or other adjustments through public programs are to be given every consideration possible. It may be reasonable for such workers to use a period of unfavorable reemployment prospects to improve their job prospects through training. Such efforts are to be encouraged and supported. If appropriate training and resources are available, claimants may have access to them as long as reemployment remains unlikely during the training period and the training is likely to improve their future employment prospects. While in training, claimants may be eligible to receive training allowances to supplement UI benefits.

"Prepared" job losers who do not qualify for UI or who exhaust their UI entitlements may qualify for UA. Benefit conditions and job services are similar to those for UI recipients. UA recipients, however, are expected to adjust their job expectations sooner and to a greater degree. They would be under greater obligation to accept temporary, part-time, and public service jobs.

*The "unprepared" jobseeker.* These job losers are either structurally unemployed workers whose skills or experience are no longer in much or any demand in the local labor market, or marginal workers with no skills or with other employability impediments. If eligible, they can receive UI.

In the first 3 weeks of their unemployment, their job prospects and vocational improvement needs are diagnosed and evaluated. Appropriate plans are made for their job search and vocational training. The counselor's views of the worker's job prospects and needs are discussed thoroughly and frankly with the worker. The latter is encouraged to consider seeking jobs that may be quite different from past employment and to accept initially lower wages, if necessary, to start on a new line of work.

The worker is informed about available courses of training and encouraged to consider them. If some other type of rehabilitative measure seems appropriate, such as relocation or even medical therapy to reduce a handicap, that too may be suggested; assistance may be made available to enable the worker to take that step.

It is important that the worker's job prospects and available courses of action be clearly brought out and explained.

Claimants receiving Tier 1 benefits need not follow the counselor's suggestions with regard to broadened job search or undertake suggested training or other adjustment, because it is recognized that the counselor's judgment is not infallible, especially in the earlier stages of unemployment. Counselors must be particularly careful not to harass experienced workers suffering structural unemployment but still hoping to find jobs needing their skills and experience. If job search results continue to confirm the counselor's negative outlook, workers may then be pressed harder to accept the steps recommended. There should be close monitoring of job search activity and frequent counseling during the first 3 months of a claimant's unemployment.

The unemployed worker who has exhausted Tier 1 benefits and who continues, without good cause, to resist the suggested adjustments may jeopardize eligibility for continued UI protection. While drawing Tier 3 benefits, an unprepared jobseeker may be disqualified for refusal to accept referrals to employment in a new field or at lower wages. Within Tier 3, refusal of appropriate training or other rehabilitation is treated in the same way as refusal of a suitable job.

#### *Misconduct discharges and retirees*

*Discharged for misconduct.* A worker fired for misconduct is disqualified from receiving Tier 1 UI benefits and may not file for Tier 2 until 13 weeks after the discharge. A claimant who had at least 8 weeks of employment following the misconduct discharge may file for Tier 2 without further delay; one who worked at least 15 weeks following the misconduct discharge may file for Tier 1. Once qualified for UI (or UA), such a claimant is treated as any other job loser.

*Involuntary retirees.* Workers who were retired involuntarily from their jobs but remain in the labor force

by seeking new work and are available for and able to work may file for UI.<sup>9</sup> They must meet the usual conditions of registration for work and regular reporting.

Because of their age, retired workers tend to have extra difficulty in finding employment, especially employment that is equivalent or similar to their prior jobs. This factor is taken into account in the analysis of reemployment prospects and the development of the job search plan, which are to be prepared during the first 3 weeks after filing. The worker is urged at this early stage to look for a wider range of "suitable" jobs. Because of age and receipt of a retirement pension, the worker's genuine attachment to the labor force receives special scrutiny. Inadequate job search and unreasonable restrictions on availability for work and on the type of employment to be considered are grounds for disqualification from UI.

The job search conditions applicable in Tiers 2 and 3 are similar to those for job losers. Generally, however, retired claimants are required to lower their job expectations sooner than other job losers are.

*Job leavers.* Workers who voluntarily quit their jobs without good cause are treated in the same manner as those who lose their jobs because of misconduct. If the reason for quitting was a compelling personal problem that could not be avoided or overcome, then the worker is not disqualified from drawing Tier 1 benefits and is treated as a job loser who is eligible for UI. A worker who leaves one job to take another and is then laid off should not be disqualified on the basis of the previous voluntary quit.<sup>10</sup>

### **Unemployed and not previously employed**

*Reentrants.* All persons in this group will have been out of the labor force for some significant period of time, perhaps for more than 6 months. Some will be eligible for UI and some will not.

*Reentrants eligible for UI.* A reentrant with some base-period employment may qualify for Tier 1 UI benefits if the last job separation did not occur under disqualifying circumstances. The circumstances of temporary labor force separation should be examined carefully. The reasons for leaving and for returning may have a bearing on availability for work and on the type of job services needed. Apart from these considerations, the claimant should be treated the same as any job loser on Tier 1.<sup>11</sup>

*Reentrants ineligible for UI.* By registering for work at the public employment office, this individual announces a return to the labor force. The type of job search services provided depend on vocational skills and experience and on such considerations as how far

back the last employment was; whether it was permanent, temporary, or intermittent; and whether it was full time or part time. The extent of job services provided depends partly on need and partly on the degree to which the reentrant seems to desire permanent full-time employment.<sup>12</sup>

*New entrants.* Job applicants with no prior work experience are not eligible for UI (they may become eligible for UA), but they are entitled to job services. The extent of job services provided is determined in the same way as for reentrants who are not eligible for UI benefits.

### **Estimated Costs of the Three-Tier Program**

Estimates of how much the various elements of the proposed Job Security System might cost, compared to existing programs, are not available for the three-tier UI program.

A model has been constructed using information obtained from the 1976 National Survey of Income and Education and from other studies to estimate benefit costs generated by alternative State UI provisions for given years at specified rates of unemployment.<sup>13</sup> Through this model, the U.S. Department of Labor staff has developed estimates of benefit costs and some other dimensions of the three-tier UI program and those of the existing programs. The estimates must be regarded as tentative. There is some question about the model's capacity to make accurate estimates of the number of unemployed workers eligible for the three tiers in a given State. Perhaps national estimates are more reliable than individual State estimates.

With that reservation in mind, the national estimates for the three-tier program and the existing programs are presented (see Table 1) with the following conditions:

1. State provisions used for existing programs are those used in January 1980.
2. State WBA provisions, rather than the WBA provisions proposed, apply for the three-tier estimates.
3. The qualifying requirements for Tier 1 eligibility are 14 weeks of base-period employment for each State and total base-period earnings equal to 14 times 20 percent of the statewide average weekly covered wage estimated for 1979.
4. The qualifying requirement for Tier 3 was 39 weeks of work in the base period. The proposed alternative of 52 weeks in the base period and preceding year was not applied since the longer record was not available. The result is an understatement of the number of Tier 3 claimants and benefit costs.
5. Three-tier estimates do not reflect proposed disqualification provisions.

6. The estimates are for a year with the average (total) unemployment rate assumed at two levels: (a) 6.6 percent and (b) 7.5 percent.

7. Estimates of extended benefits under programs assume that such benefits are payable in all States throughout the year. At the unemployment rates assumed, these costs are clearly overstated. The national trigger requirement is unlikely to extend benefits nationally at the 6.6 percent total unemployment level, nor is it likely to do so at the 7.5 percent level, at least not for the entire year. A few States may be paying extended benefits at the 6.6 percent level, and more at the 7.5 percent level.

Under the 6.6 percent unemployment rate, an estimated \$12.5 billion would be paid through the three-tier program. The total compares with an estimated \$11.3 billion in payments under the existing UI programs. The extended benefits total outlay estimated is \$1.6 billion, but a small fraction of this total, about 10 percent, is a more realistic estimate. Assuming the latter is correct, total outlays under existing UI programs and extended benefits would equal \$11.4 billion. The three-tier program is thus estimated to be about 11 percent more costly at the 6.6 percent unemployment level. Tier 3 benefits would be greater if the alternative qualifying requirement were applied, further enlarging the difference between the three-tier and existing program costs.

At the 7.5 percent unemployment level, the three-tier outlay total is estimated at \$14.8 billion, about 18 percent more than at the 6.6 percent level. Tier 3 outlays are over 25 percent higher at the 7.5 percent level, and Tier 1 outlays are only 14 percent higher. Regular UI program outlays total \$13.1 billion, about 17 percent higher at the 7.5 percent unemployment level. If a more reasonable expectation is about half of the national extended benefit outlays estimated at this level, then the outlays estimate for existing programs would total \$14.2 billion, compared with the \$14.8 billion estimate for the three tiers, or 4 percent more. Again, a correction for understated Tier 3 costs would enlarge the difference.

The pattern indicated by these estimates seems clear. At lower levels of unemployment, the three-tier program will pay out more in benefits than the present system. As unemployment rises and extended benefits become increasingly widespread, the difference narrows, and at some point outlays under the present UI system may exceed three-tier outlays. It is interesting also to note that regular UI benefits exceed benefits paid in the first two tiers at both unemployment levels by over a quarter billion dollars. The overall difference clearly is in the comparative effects of Tier 3 and extended benefits.

Somewhat fewer unemployed workers would qualify for Tier 1 benefits than for regular benefits under

January 1980 provisions. For States with flat annual earnings requirements, such as California, the 14-week test for Tier 1 would qualify fewer persons. In others, the 14-week requirement would qualify more than would current tests. The base-period total earnings test for Tier 1 may be stiffer and could offset some of this difference. On the whole, the Tier 1 test appears to be a little more demanding. Under the proposal, States would be free to set the Tier 1 requirement at anywhere from 14 to 20 weeks. To the extent that they set it closer to 20 weeks, fewer workers would qualify for Tier 1.

Exhaustion rates (exhaustions as a percentage of first payments) are somewhat lower under the three-tier system than existing programs at either assumed level of unemployment. The pertinent comparisons are exhaustion of Tier 2 benefits and of regular program benefits. The Tier 2 exhaustion rates, at 20 and 23 percent, run about 2 percentage points lower than regular program exhaustion rates.

The estimates, by and large, do not indicate a very wide difference between the current UI program and the three-tier program in benefit costs. The three-tier system is more costly at lower unemployment levels even though somewhat fewer workers would qualify. Longer duration of benefit protection under the three tiers makes the difference. To the extent that States increase their regular durations, that difference would be reduced.

#### **Other Job Security System costs**

Although estimates are not available for other costs of the proposed new system, some observations can be offered. There is little doubt that the costs of UA and of the more intensive and personalized job search assistance provided will be substantially higher than current programs and services. UA would replace much of the present AFDC program and State and local general assistance, but its scope would go well beyond these programs. The income test to be applied should be less restrictive than the means tests now used for AFDC and general assistance. UA would be available to unemployed persons with low income, including those without dependent children, who are categorically excluded from AFDC. UA benefit payments, depending on the State, may be more or less than AFDC payments. At some point, UA estimates should be made and compared within the context of recent welfare reform proposals.

The employment and training services called for under the proposed JSS would outstrip the costs of the very limited services presently available. Employment and training staff levels among State agencies have been frozen for about 15 years, while covered employment and claims loads have steadily risen. A substantial expansion of staff and services in the existing

system would correct the current deficiency. JSS services would go beyond these levels. The costs of servicing UA recipients would be offset in part by replacement of some of the services currently provided under the WIN and CETA programs. But expanded training opportunities would expand JSS costs further.

UI administrative costs would be higher because periodic reviews of claimant eligibility and job search status would be required, particularly as a claimant moved from one tier to another. The current eligibility review program required in all States covers some of the same ground, but the three-tier program goes further. Administration of UA on a weekly basis would, of course, add costs beyond current AFDC administrative costs.

In all, JSS would require substantially greater outlays. The question is whether, in the long run, the new system would reduce the level, frequency, and duration of unemployment and yield more productive use of our human resources. A full benefit-cost analysis would have to balance broader economic gains and lower income support costs against higher JSS costs.

## Notes

1. In 1977, the Michigan Department of Labor requested recommendations for alternatives to the current UI system. A comprehensive Job Security System, outlined in this report, was developed by the author under contract with the W. E. Upjohn Institute of Employment Research. The original system was tailored to State initiatives; this summary contains significant modifications to adapt it to a national perspective.

2. The total number of persons who experience unemployment at any time during a year is a much larger figure: in 1978, this number was 17.7 million, compared with an average unemployment level of 6

million that year. Classifications by reason for unemployment are available only for those unemployed as of the midweek of each month.

3. Based on CPS responses, the Bureau of Labor Statistics classifies unemployed workers who have jobs from which they are on layoff as being on "temporary layoff" if they are expected to be recalled within 30 days, and others are considered to be on "indefinite layoff."

4. Other currently used qualifying tests that are based on a multiple of the weekly benefit amount or flat annual earnings requirements are not allowed, as they are comparatively weak equivalents.

5. In most States, base periods are the first four of the last five completed calendar quarters prior to the start of the benefit year. Taking account of lag period employment will remove the barrier to UI eligibility for many new entrants or reentrants to the labor force.

6. Besides the usual arguments made for a Federal WBA standard, the three-tier scheme assumes Federal financing for UI benefits after Tier 1.

7. Federal Supplemental Benefits paid during the 1975-77 period were financed in part out of Federal general revenues.

8. Under new Federal law, compulsory retirement will not be allowed before age 70. Voluntary retirees are treated as job leavers for UI purposes.

9. UI benefits paid to job leavers are not charged to the employers they left.

10. The reentrant who was out of the labor force for over 6 months probably will be unable to qualify for Tier 2 but may become eligible for UA.

11. A reentrant who is not eligible for UI may still be able to qualify for UA.

12. The model was prepared by the Urban Institute for the National Commission on Unemployment Compensation and the U.S. Department of Labor.



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# Evaluation of Benefits



# State Replacement Rates in 1980

Wayne Vroman

Average citizens, persons in the media, policymakers, and academic economists hold sharply divergent opinions concerning the average or typical size of the unemployment insurance (UI) program's replacement rates (unemployment compensation benefits relative to the economic losses caused by unemployment). Opinions range from the viewpoint that benefits are excessive and cause many to avoid work to the viewpoint that benefits are sorely inadequate in relation to the economic hardships caused by unemployment.

This report examines replacement rates in State UI programs. The importance of studying replacement rates, including five questions to be considered, is addressed first. Different replacement-rate concepts and earlier research are then summarized. Finally, a large-scale micro simulation model used to make replacement-rate estimates is described briefly, and a set of resulting replacement rate estimates for 1980 are analyzed.

The analysis produced five main findings. First, the estimated average replacement rate is strongly influenced by the way the replacement rate was measured. Two important issues are the treatment of uncompensated weeks of unemployment and the definition of the weekly income loss due to unemployment (weekly wages or weekly net income, which also includes such factors as taxes and fringe benefit losses). Thus, aggregate State UI benefits were 17.1 percent of aggregate wage losses among experienced unemployed workers in 1980. Among program beneficiaries, benefits replaced 26.9 percent of aggregate wage losses. For these same beneficiaries, however, when the ratio of benefits to total wage losses was first computed on a micro basis and then averaged, the mean of the micro replacement rates was found to be 34.7 percent. The range from 17.1 to 34.7 resulted entirely from definitional differences. Under still other definitions, the average replacement rate was measured to be as large as 45.7 percent in 1980. These definitional differences are examined in some detail later in this report.

Second, regardless of the replacement-rate measure used, the mean or average replacement rate is quite modest. Using what the author regards as the "most appropriate" replacement concept (termed the "net broad replacement rate" later in this report), the mean

rate for individual beneficiaries was about 40 percent, not 60 or 70 percent as has been suggested by recent research. Thus, typical beneficiaries have much less than half of their economic loss replaced by program benefits. This must be emphasized, since the original intent of the State UI program was to replace half of the unemployed worker's wage loss.

Third, individual beneficiaries have a wide range of replacement-rate experiences. When replacement rates were examined in micro records, the rates were found to range from 10 percent to more than 100 percent. Some of the sources of this variation are traceable to differences in State UI program statutes potentially amenable to change, while other statutes are beyond the potential influence of State UI policymakers. The most effective way to reduce replacement-rate variation is through a combined policy of making the State UI program statutes more uniform and subjecting program benefits to full taxation as ordinary income. Even under such a combined set of policy changes, however, a substantial amount of replacement-rate variation would continue. Thus, some of the harmful consequences of replacement-rate variation (inequities among beneficiaries and labor supply distortions) would continue even after a set of comprehensive policy changes were implemented.

Fourth, a substantial variation in interstate replacement rates exists. This can be greatly reduced by statutory changes in the current State UI programs.

Finally, unemployed workers receive payments from private and other public transfer payment programs (besides State UI) as a consequence of their unemployment. However, State UI benefits constitute the bulk of all transfers received by unemployed workers and their families. For 1980, State UI benefits are 88 percent of total transfers while supplemental unemployment benefit (SUB) payments and benefits from the Supplemental Security Income (SSI), Aid for Dependent Children (AFDC), and food stamp programs make up the other 12 percent of total transfers.

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## The Importance of Analyzing Replacement Rates

### General considerations

Workers who become involuntarily unemployed because of job layoffs are normally eligible to collect benefits from State UI. The program was created by the Social Security Act of 1935, and individual States have the primary responsibility for administering tax collections from employers and benefit payments to workers. Although the State UI program has many objectives, its wage replacement objective is paramount. One oft-quoted book on UI makes this point succinctly: "The primary objective of unemployment insurance is to alleviate the hardships that result from the loss of wage income during unemployment. All other objectives are secondary."<sup>1</sup>

To judge how well a program is achieving this primary objective, it is necessary to compare benefit payments with unemployment-induced wage losses. The ratio of benefits to wage losses is called the wage-loss replacement rate, or, more simply, the replacement rate.

To determine the optimal replacement rate in State UI, three conflicting considerations apply: (1) increasing benefit adequacy, (2) holding down total program costs, and (3) minimizing labor-supply disincentive effects.<sup>2</sup> The three are not compatible, since higher payment levels raise program costs and increase disincentive effects while increasing benefit adequacy. In balancing these conflicting considerations, it is important to have correct information about State UI replacement rates. This report provides estimates of average replacement rates in 1980 and shows how much the rates vary from worker to worker and from State to State. The analysis, then, is positive in focus and examines questions about actual replacement rates. It will not address the normative question of the optimal rate.

State UI programs have insurance objectives and welfare objectives in providing benefits to unemployed workers.<sup>3</sup> Insurance objectives are reflected in benefit formulas that mandate weekly benefits to be a fixed percentage (often 50 percent) of the worker's weekly wages prior to unemployment. At the same time, however, benefits are constrained to fall between a minimum and a maximum level in all States. Also, some States have weighted benefit formulas that pay relatively more to low-wage workers, while other States provide dependents' benefits, reflecting the welfare objectives of the program. Workers with low weekly wages and with more dependents are presumed to have greater needs and enjoy proportionately higher wage-loss replacement as a matter of deliberate social policy.

### Research questions

This report addresses five important questions about

the current State programs. All five relate generally to issues of the adequacy and fairness of benefits, the effects of policy actions, and the relationship between State UI and other income-transfer programs. An empirical investigation of these questions is conducted in a later section of this report.

*Income replacement.* What is the extent of income replacement under the current program? The intent of the law in most State UI programs is to replace half of the unemployed worker's weekly wage. Actual replacement may be more or less than 50 percent depending on such factors as the worker's wage level, marginal income tax rate, and duration of unemployment. State UI laws and administrative procedures also influence the extent of income-loss replacement. Average income replacement among all recipients provides a measure of overall benefit adequacy under a program. Higher benefit adequacy also implies more extensive labor market distortions and increased State UI program costs.

*Variance among workers.* How much do replacement rates vary among individual workers? State UI replacement rates can vary considerably from one individual worker to the next. This raises issues of the fairness or equity in State UI benefits. Two equity measures, horizontal and vertical equity, are frequently examined by students of social insurance programs. If workers with equal earnings losses have equal or very similar replacement rates, the program has horizontal equity. If workers with unequal earnings losses have equal or very similar replacement rates, vertical equity is largely satisfied.<sup>4</sup>

As noted earlier, State UI programs have both insurance (or wage-replacement) objectives and welfare objectives. The wage-replacement objective would be achieved if average replacement equaled some predetermined target (say 50 percent) and replacement-rate variances were also very low. The existence of welfare objectives in State UI complicates an assessment of the vertical equity in benefit payments. Unemployed workers with greater economic needs are singled out for more favorable treatment by such program provisions as weekly benefit maximums, weighted benefit formulas, and dependents' allowances. Consequently, one would expect to observe higher-than-average replacement rates for workers with low weekly wages and with large families.

Equity in the payment of State UI benefits can be studied by examining the variability of replacement rates across individuals. Low variances in replacement rates indicate that equity considerations are being satisfied. Wide variances, on the other hand, suggest substantial inequities. To date, there has been very little analysis of replacement-rate variability using individual workers as units of observation.

One study of State UI beneficiaries reported a wide range of replacement rates among the 1975–1976 recipients of Federal supplemental benefits (FSB) and special unemployment assistance.<sup>5</sup> The study also found that variation in replacement rates could be reduced substantially by removing weekly benefit maximums and simultaneously taxing UI benefits. Further, the analysis suggested that enactment of such reforms would add very little to total program costs.<sup>6</sup>

A later section of this report contains an analysis of replacement-rate variability based on all State UI beneficiaries, not just on the long-term unemployed. It assesses some factors systematically associated with replacement-rate variability and possibly amenable to change through public policy such as by changing State UI laws or by taxing State UI benefits.

*Variance among States.* How do replacement rates vary among States, and how much is due to differences in State UI laws and administrative practices? This important policy question has received little attention.<sup>7</sup> State programs differ considerably with respect to such important provisions as the statutory replacement rate, the weekly benefit maximums, the waiting period, and maximum weeks of benefits. In addition, administrative practices regarding denial rates and length of disqualification periods also contribute to variation in replacement rates.

Greater uniformity both in statutes and in administrative practices would reduce replacement-rate variability. The important policy questions are these: (1) How much reduction would be achieved if the State programs were more uniform? (2) What kinds of changes would have the largest effects on replacement-rate variation?

*Policy effects.* What are the effects of public policy on the means and the variances in replacement rates? A wide range of public policies can affect replacement rates. As noted above, changes can be made in the statutes and in the administrative practices of the individual State UI programs. Replacement rates can also be affected by other policies, such as the treatment of State UI benefits under the Federal personal income tax.

Starting in 1979, half of the State UI benefits were taxable under the Federal income tax when income exceeded a predetermined limit (\$25,000 for couples filing jointly and \$20,000 for single individuals). In the analytical section of this report, comparisons of means and variances for 1980 are made under three different circumstances: the current tax treatment of UI benefits, the previous (tax-free) treatment of UI benefits, and full taxability of UI benefits.

*Vis à vis other transfers.* What is the relationship of State UI benefits to other transfer payments that may be received by unemployed workers? Since labor market

earnings are the most important single source of income for the majority of American families, a prolonged spell of unemployment can lower a family's income substantially. State UI is only one of several transfer payment programs that provide (cash and in-kind) benefits to low-income families. If an unemployed worker does not receive State UI, what other transfers are available to and received by the family?

This question raises the issue of transfer program overlaps.<sup>8</sup> The overlap issue is important in determining the net income losses caused by spells of unemployment. It is also important because changes in State UI benefits may affect the benefit amounts paid in other programs such as SSI, AFDC, and food stamps. Raising State UI benefit levels and extending the maximum duration of benefits, or both, could have a measurable impact on the amount of AFDC and food stamp benefits. Thus, an analysis of program overlaps is important in an assessment of benefit adequacy for State UI recipients, State UI benefit exhaustees, and unemployed non-recipients.

## UI Replacement Rates

Because UI recipients are members of families, typically, it is useful to view program benefits as replacing a part of the family's income loss caused by unemployment. The onset of unemployment signals a reduction in earnings and family income. An interesting analytical issue is the size of State UI benefits relative to the earnings losses and family income losses.

### Replacement-rate concepts

Research in the past decade has yielded widely varying conclusions about the size of UI replacement rates. A crucial factor is the rate definition used. Studies vary in how they define economic loss and how the experiences of individual workers are combined to yield an overall replacement rate.

Benefit adequacy in UI can be assessed by examining the average or overall replacement rate. There are, however, two quite distinct average replacement-rate concepts that can be used as global measures of benefit adequacy. The macro replacement rate is the sum of all program benefits divided by the sum of all unemployment-induced economic losses. The second, the average micro replacement rate, is the simple average of all individual replacement rates. Algebraically the two can be expressed as follows:

$$R = (B_1 + B_2 + \dots + B_n) / (L_1 + L_2 + \dots + L_n) \quad (1)$$

$$\bar{r} = [(B_1/L_1) + (B_2/L_2) + \dots + (B_n/L_n)]/n \quad (2)$$

where  $R$  is the macro replacement rate,  $\bar{r}$  is average

micro replacement, and  $B_i$  and  $L_i$  are, respectively, the benefit and economic (earnings or net income) loss for the  $i$ th unemployed worker;  $i = 1, \dots, n$ .

In general, the two replacement measures are not equal. Macro replacement weights individuals' replacement rates by the size of their economic loss, that is, by  $(L_i/\Sigma L_i)$ ; average micro replacement weights each individual's replacement rate equally, that is by  $(1/n)$ . Thus, the two measures represent different aspects of average replacement. Macro replacement gauges economy-wide replacement and is heavily influenced by the experiences of those whose economic losses are the largest. Average micro replacement, on the other hand, weights each individual replacement rate equally and shows the central tendency of the replacement-rate distribution.

If economic losses are about the same for all persons, if all individual replacement rates are the same, or if replacement rates are uncorrelated with the size of economic losses, the two average replacement-rate measures will be roughly equal. However, if replacement rates are correlated with the size of economic losses, the two measures will be quite dissimilar. A simple example illustrates this point. Consider two unemployed workers with benefits and economic losses as follows:  $B_1 = \$50$ ,  $B_2 = \$200$ ,  $L_1 = \$100$ ,  $L_2 = \$800$ . Macro replacement in this case is  $0.278 = \$250/\$900$ , while average micro replacement is  $0.375 = (50/100 + 200/800)/2$ . Macro replacement is the lower of the two because the individual replacement rates are negatively associated with the size of the economic losses. There is reason to believe this example is indicative of actual situations in UI; that is, macro replacement is the smaller of the two because of benefit exhaustions among the long-term unemployed and the importance of weekly benefit maximums. To describe program benefit adequacy accurately, both types of average replacement should be calculated.

The two average replacement rates have somewhat different uses. Macro replacement is especially relevant in discussions and analyses of the automatic stabilizing properties of UI. The numerator in this rate, aggregate benefit payments, is also crucial in evaluations of how program outlays respond to changes in labor market conditions and changes in the statutory provisions of individual State UI programs, or both. Average micro replacement, the mean of the replacement-rate distribution, is closely tied to questions of benefit adequacy, replacement-rate variation, and equity in benefit payments. Because micro replacement rates are based on the experiences of individual workers, they can be used for a variety of intragroup and intergroup comparisons of workers' UI benefit experiences.

At the micro level, one can define seven distinct but related replacement-rate concepts:

$r_{GS}$ —the gross statutory replacement rate; that is, the rate explicitly specified by law in each State.

In many States  $r_{GS}$  is 0.50, although this is not necessarily the exact wording of the statute. For example, the legislative language may specify benefits to equal 0.038 of base-period high-quarter earnings, with the base period as the year prior to the onset of unemployment. This represents a 50 percent replacement of average weekly wages in the high-earnings quarter.

$r_{GN}$ —the gross narrow replacement rate.

This is the ratio of weekly benefits to average weekly wages of the base period ( $WB/AWW$ ) for weeks when the unemployed worker receives benefits.

$r_{GB}$ —the gross broad replacement rate.

This rate also depends on the ratio of weekly benefits to average weekly wages ( $WB/AWW$ ), but it reflects the fraction of time the unemployed worker actually collects benefits as well. Benefits do not start immediately at the onset of unemployment (because of the waiting period, payment lags, late applications for benefits, and benefit disqualifications), and benefits may terminate before the end of a spell of unemployment (because of exhaustions and voluntary terminations of benefits). Because of these factors,  $r_{GB}$  will be less than  $r_{GN}$  for any program beneficiary.

$r_{NN}$ —the net narrow replacement rate.

This is the ratio of weekly benefits to the loss in net weekly income caused by unemployment ( $WB/NWY$ ). The net income loss is influenced by income taxes and a number of other factors. While the worker is unemployed, the family income falls and so do (Federal, State, and local) income taxes and payroll taxes. Also, the worker's family does not incur as many work-related expenses. Reduced taxes and work expense tend to cushion the fall in family income. In contrast, two factors tend to further the reduction in family income—the loss of nonwage labor compensation that accrues during employment and the loss in worker earnings due to wage growth between the base period and the time of unemployment—because State UI benefits are linked to base-period wages. Because family income taxes are usually the largest of the four separate income adjustments, the net weekly income loss is typically less than the worker's average weekly wage. Thus,  $r_{NN}$  exceeds  $r_{GN}$  for most households.

$r_{NB}$ —the net broad replacement rate.

This is the ratio of weekly benefits to the net weekly income loss ( $WB/NWY$ ) adjusted for the fraction of time the unemployed worker actually receives benefits.

As in the comparison of  $r_{GB}$  and  $r_{GN}$ ,  $r_{NB}$  is less than  $r_{NN}$  because of such factors as the waiting period and benefit exhaustions. Of the five replacement-rate measures,  $r_{NR}$  is probably the most appropriate for examining issues of adequacy and equity of UI benefits. This ratio uses a net weekly income-loss measure, and it recognizes that some weeks of unemployment are not compensated.

$r_{GT}$ —the gross total transfer replacement rate.

$r_{NT}$ —the net total transfer replacement rate.

Respectively, these measure the part of the total wage loss and the part of the total net income loss that are replaced by all transfer payments combined. Besides UI,  $r_{GT}$  and  $r_{NT}$  reflect payments from public programs such as SSI, AFDC, and food stamps and privately financed SUB payments, which are also elements of the economy's total set of income transfer programs. Such transfers may be received concurrently with UI benefits or after benefits have been exhausted. Their presence causes  $r_{GT}$  ( $r_{NT}$ ) to equal or exceed  $r_{GB}$  ( $r_{NB}$ ) in all cases. Calculating  $r_{GT}$  and  $r_{NT}$  is not as important for evaluating UI per se as it is for examining program overlaps and aggregate transfer program costs. Changes in UI benefits can affect the payments a worker receives from one or more of the other transfer programs.

Within this set of definitions, two important distinctions have been made. Net and gross replacement rates are distinguished by the concept of economic loss per week used; for example, the net weekly income loss and average weekly wage, respectively. Narrow and broad replacement rates differ in that the broad rates recognize the uncompensated weeks of unemployment. To examine the interrelations among these replacement rates, it is convenient to introduce two more terms into the discussion:  $f$  is the fraction of the unemployment spell during which the worker actually collects benefits, and  $k$  is the ratio of the workers' net weekly income loss to their average weekly wage ( $NWY/AWW$ ). The fraction  $f$  is strictly bounded between 0 and 1. Although  $k$  is typically less than 1, it may be greater than 1 in individual situations. Income taxes and work-related expenses reduce  $k$ , while nonwage labor compensation and inflation in money wages raise  $k$ .

UI replacement rates satisfy the following inequality relationships:

$$r_{GS} \geq r_{GN} > r_{GB} \quad (3)$$

and

$$r_{NN} > r_{NB} \quad (4)$$

In equation 3, the rates  $r_{GS}$  and  $r_{GN}$  will be equal for workers eligible for less than maximum weekly benefits. For those at the weekly maximum, however,  $r_{GS}$  will exceed  $r_{GN}$ .<sup>9</sup> The inequality relations between the broad and narrow replacement rates in equations 3 and

4 reflect the fraction of time unemployed workers actually collect benefits, or  $f$  as defined above. This fraction can be used to explicitly relate broad and narrow replacement rates:

$$r_{GB} = f \times r_{GN} \quad (5)$$

and

$$r_{NB} = f \times r_{NN} \quad (6)$$

In both equations 5 and 6,  $r_{GB}$  and  $r_{GN}$  will become more nearly identical as  $f$  approaches 1.

The distinction between broad and narrow replacement rates is especially important because most spells of unemployment are rather short. For example, during the recession year of 1975, 7.8 million persons, or 45 percent of the 17.4 million wage and salary workers who experienced unemployment, had spells that lasted 10 or fewer weeks. In years of stronger labor markets, the fraction of such short spells is considerably higher; for example, 66 percent in the full-employment year of 1966.<sup>10</sup> As duration is shorter, the gap between broad and narrow replacement rates tends to widen, reflecting the combined effects of waiting periods, disqualification periods, and application delays.

Having defined the ratio  $k$  that relates the net weekly income loss to the worker's weekly wage, the relationship between gross and net replacement rates can now be expressed in simple equations:

$$r_{GN} = k \times r_{NN} \quad (7)$$

and

$$r_{GB} = k \times r_{NB} \quad (8)$$

Because of the importance of taxes in determining  $k$ , its value will usually be less than 1. Therefore, gross replacement rates typically are smaller than net replacement rates. The two rates in equation 7 have received considerable attention in earlier replacement-rate research. Publications of the U.S. Department of Unemployment Insurance Services (UIS) often describe replacement rates in the program as being 0.30 or 0.40. The basis for such estimates is computations of  $r_{GN}$  in individual States. Martin Feldstein, in contrast, asserts that replacement rates often exceed 0.70 and uses estimates of  $r_{NN}$  as the basis for his calculations. The difference in these two estimates is to some extent a reflection that  $k$  in equation 7 is usually smaller than 1.

For the individual State UI beneficiary, the following relation holds:

$$(1/k) \times r_{GN} > (f/k) \times r_{GN} \begin{matrix} > \\ < \end{matrix} r_{GN} > f \times r_{GN} \quad (9)$$

The four terms in equation 9 differ only in their treatment of the factors  $f$  and  $k$ . The ratio  $(f/k)$  determines the ranking of the two middle terms in this expression.

Relation 9 is significant because it contains four of the micro replacement rates previously defined. By using relations 5, 6, and 7, expression 9 may be rewritten as follows:

$$r_{NN} > r_{NB} < r_{GN} \begin{matrix} > \\ < \end{matrix} r_{GB} \quad (10)$$

For individual workers, net narrow replacement rates are generally the largest of the four while gross broad replacement rates are generally the lowest. Exceptions to this ranking can exist at the micro level, but for groups the mean value of  $r_{NN}$  will be considerably larger than the mean of  $r_{GB}$ . For example, if  $k = 0.7$ ,  $f = 0.55$ , and  $r_{GN} = 0.40$ , the values for the other three replacement rates would be as follows;  $r_{NN} = 0.57$ ,  $r_{NB} = 0.31$ , and  $r_{GB} = 0.22$ .<sup>11</sup> The largest of the four ( $r_{NN}$ ) is more than twice the size of the smallest ( $r_{GB}$ ), and the difference is entirely a matter of definition.

*Selecting a measure.* Which of the several replacement-rate concepts portrays most accurately the experiences of the unemployed worker? In examining questions of benefit adequacy, the net broad replacement rate ( $r_{NB}$ ) and the net total transfer replacement rate ( $r_{NT}$ ) seem clearly superior to the others. Both measure total transfers relative to the total net income loss caused by unemployment. They differ in that the net total transfer rate also includes transfer payments from other programs. It is curious that previous research on UI has not focused on the net broad replacement rates under the program. Net narrow replacement rates ( $r_{NN}$ ) ignore the uncompensated weeks of unemployment; therefore, it is clear from relations 9 and 10 that such rates will be systematically higher and exaggerate the generosity of program benefits. Conversely, gross broad replacement rates will systematically understate the program's replacement of net family income losses.

The size of net narrow replacement rates is of major importance in gauging the potential labor market distortions of UI benefits. When weekly benefits are high relative to weekly net income losses, some workers will extend the duration of their unemployment spells.<sup>12</sup> Also, for assessing potential "entitlement effects," net narrow replacement rates undoubtedly enter the calculations for determining the weeks of employment and quarterly earnings of some marginal workers.<sup>13</sup>

As noted, the net broad replacement rate is the most appropriate rate for judging the adequacy of program benefits. The economic loss is computed for the entire duration of unemployment using net family income in the loss calculation. To estimate this replacement rate one must know the total duration of unemployment, the duration and level of weekly benefits, and all of the factors that enter into the determination of  $k$ , such as family income tax rates. The Urban Institute micro simulation model (to be described later in this report) simulates all of the variables necessary

for computing  $r_{NB}$  on a microeconomic basis. Further, the model can compute and compare all replacement rates relevant to a thorough analysis of benefit adequacy. In addition to the six micro replacement rates ( $r_{GN}$ ,  $r_{GB}$ ,  $r_{NN}$ ,  $r_{NB}$ ,  $r_{GT}$ , and  $r_{NT}$ ), the model can produce estimates of six corresponding macro replacement rates ( $R_{GN}$ , and so on). Thus the model can be used to yield a comprehensive assessment of replacement rates under the current State UI laws and under various possible reform scenarios. It also can be used to help evaluate the findings of earlier replacement-rate research.

### Previous replacement-rate research

Historically, the replacement rate in UI has been measured by the ratio of average weekly benefits among recipients to average weekly wages of all covered workers—that is, a gross narrow replacement rate. This rate often appears in publications of the UIS, and the economy-wide ratio has varied between 0.30 and 0.43 for the past 40 years. The replacement rate suggested by the 0.30 to 0.43 ratio has been criticized as too low relative to the "true" replacement rate for two major reasons. First, program benefits are not taxable, while weekly wages are taxed.<sup>14</sup> Second, unemployed workers receive lower wages than the average worker covered by the program. It has been argued that accurate recognition of these two factors would increase the program's measured replacement rate substantially.

Interest in UI replacement rates has risen in recent years, partly as a consequence of provocative research conducted by Martin Feldstein. In a series of related papers, he has challenged several traditional notions of the program's actual function in the economy.<sup>15</sup> Three of his findings are of major importance: (1) UI beneficiaries are not concentrated among low-income families; (2) UI replacement rates are quite high, often more than 70 percent of after-tax wages; and (3) the high replacement rates cause labor market distortions, such as increases in the number of spells of unemployment for workers on temporary layoff, in the average unemployment duration, and in the economy's aggregate unemployment rate. As observed earlier, Feldstein's replacement-rate concept is a net narrow replacement rate.

Feldstein's work is controversial, to say the least, and his findings have stimulated considerable interest in the effects of the program on the labor market. In one paper, he suggests that UI raises the economy's permanent unemployment rate for persons 16 and older by 1.25 percentage points.<sup>16</sup> Stephen Marston and Stuart Garfinkel and Robert Plotnick also have estimated how much the program raises the aggregate unemployment rate.<sup>17,18</sup> The results of both studies are presented as range estimates—from 0.19 to 0.34 per-

centage points by Marston and from 0.24 to 0.96 percentage points by Garfinkel and Plotnick. Thus, all three studies agree that UI causes higher unemployment but disagree on the size of its impact.<sup>19</sup>

Because labor market distortions are more severe when replacement rates are higher, many others besides Feldstein have focused on the replacement-rate issue. A series of economy-wide gross narrow replacement-rate estimates for the years 1938 to 1972 appears in a paper by David Edgell and Steven Wandner.<sup>20</sup> In 1971, they estimated the rate to be 0.363. For the same year, they estimated the program's macro replacement rate (a gross broad replacement rate) to be 0.20. The difference between these two 1971 point estimates illustrates the importance of noncompensated weeks for measured replacement rates.

A 1974 analysis by Edward Gramlich based on micro data found that UI for families headed by men replaced only 6 to 8 percent of the earnings loss caused by the 1970–1971 recession.<sup>21</sup> Among families headed by women, the calculated replacement rate was 14 to 18 percent. Gramlich's measure of economic loss includes losses in overtime hours of workers who remain employed and losses due to unemployment among non-covered workers, all job leavers, and labor force entrants. These earnings losses usually are not compensable and this fact contributes to his finding a low overall replacement rate. The replacement rates computed by Gramlich are based on the broadest economic loss concept of all recent studies on this topic. Not surprisingly, his average replacement rates are the lowest of all the rates to be discussed here.

Among studies that estimate microeconomic replacement rates, Feldstein's 1974 study has received the greatest attention. In it, he computed rates at three income levels and for different types of family structures. Overall, he estimated the program's replacement rate to be about 0.67.<sup>22</sup> Using three different replacement-rate concepts, Raymond Munts and Irwin Garfinkel examined 1971–1972 replacement rates in Ohio for several distinct types of family units and found rates ranging from 0.38 to 0.89.<sup>23</sup> A recent study by Mathematica Policy Research of recipients of Federal extended benefits during the 1975–1976 recession also found a wide range of replacement rates.<sup>24</sup> Using seven different replacement-rate measures, mean replacement ranged from 0.46 to 0.82 across four groups of beneficiaries.<sup>25</sup> For recipients of FSB the mean gross narrow replacement rate was computed to be 0.46, while the mean net narrow replacement rate (using alternative measures of economic loss) was estimated to fall into the range from 0.61 to 0.64.

Both Feldstein and Munts and Garfinkel estimated net narrow replacement rates. Neither study considered the uncompensated weeks of unemployment. Of the two, the Feldstein study found higher rates, a finding heavily influenced by differences in the way the net

income loss was estimated. Feldstein considered only taxes in computing the net income loss, while Munts and Garfinkel also considered the loss in nonwage labor compensation and growth in money wages between the base period and the period of unemployment.

This difference in measurement was an important contributor to Feldstein's higher estimated replacement rates. Among two-earner couples in which the husband was unemployed, for example, Feldstein's estimated mean replacement rate was 0.62, whereas the Munts-Garfinkel estimate was 0.56.<sup>26</sup> Note that both studies computed replacement rates for what could be termed "representative beneficiaries." Thus, both omit much of the variance in replacement rates that would be observed in an analysis based on individual micro-economic observations.

Differences in laws and administrative practices in the States also contribute to variation in replacement rates. Feldstein and Ishikawa have each computed replacement rates by State for hypothetical unemployed workers and have found a substantial amount of interstate variation. Both studies measured net narrow replacement rates, and the conclusion would have been stronger if the studies had been based on the actual unemployment experiences of workers in various States.

Like the Gramlich study, the Mathematica study was based on actual micro observations of unemployed workers, specifically the recipients of benefits from the FSB and Special Unemployment Assistance (SUA) programs, which were enacted in response to the 1974–1975 recession. Both means and distributions of replacement rates are displayed in their final report. Mathematica experimented with several different measures of net income loss and computed a variety of replacement rates for each microrecord. All replacement rates in their analysis were (gross and net) narrow replacement rates. Having micro observations, their study was able to show the wide range of replacement rates that exist in UI. Note that the population in their study, the long-term unemployed, is not representative of the entire beneficiary population. On average, their workers were somewhat less skilled and lower paid than the average for all program recipients. Since low-wage workers are not paid weekly benefit maximum, the various narrow replacement rates computed in the Mathematica study must be somewhat higher than the rates for typical recipients.

*Concepts vary.* The preceding paragraphs have briefly summarized the finding from six analyses of UI replacement rates. Certain limitations of particular studies have been noted. A striking feature of the survey is the broad range of the estimated replacement rates. Much of the variance, however, is due to the different replacement-rate concepts used in the studies. Those based on net narrow replacement rates found very high net-income-loss replacement (above 0.60), whereas

those based on a gross broad replacement rate found very low replacement rates (0.20 or below). This range is very wide and the a priori rankings shown in relations 9 and 10 of the previous section are borne out by these studies.

As observed earlier, none of the studies used a net broad replacement-rate concept as the measure of economic loss. Except for the Gramlich study, the studies used a narrower measure of economic loss. Uncompensated weeks of unemployment were not considered or else factors such as taxes and losses in fringe benefits were not recognized. Because it considers losses in net weekly income as well as uncompensated weeks of unemployment, the net broad replacement rate is the most appropriate measure of benefit adequacy in UI. Much of the analysis later in this report will focus on net broad replacement rates.

### The Micro Simulation Model

The Urban Institute UI model is a large-scale micro simulation model that may be used for research, policy analysis, and forecasting.<sup>27</sup> It is built on a State-representative data base so that individual States may be examined as well as national aggregates. The model is quite flexible and allows the user to analyze different calendar years, to assume different national and State-specific unemployment rates, and to change the most important State UI program parameters within any State. Because it uses microrecords, the model can examine the experiences of individual workers as well as aggregations derived from the microrecords. Thus, it can produce estimates of the various macro and micro replacement defined in the previous section of this report.

The model combines within a consistent framework detail on each worker's labor force and unemployment status, previous work history, and other information relevant to the receipt of State UI program benefits. It simulates annual experiences of workers and their families by using parameters derived from several sources of data. Because the receipt (or nonreceipt) of unemployment compensation is the primary concern, the model has decision rules regarding applications, eligibility determinations, benefit levels, and possible benefit exhaustions. Imbedded in the model are parameters reflecting both the statutory provisions and the administrative behavior of 51 separate State UI programs. The microrecords of the model can be integrated into a second Urban Institute simulation model, the TRIM model, to simulate personal tax payments and the receipt of other transfer payments.<sup>28</sup> Coupled with the TRIM model, then, the model can estimate the full extent of family net income loss caused by unemployment.

The Survey of Income and Education (SIE) is the

primary data base for the model.<sup>29</sup> This survey, which was conducted for the Department of Health, Education and Welfare in 1976, gives the model a data base with unique advantages for conducting research on UI. The SIE was a large-scale survey of about 150,000 households with primary sampling units in every State. Among the important items in its microrecords are data on previous-year labor market experiences, demographics (age, race, sex, and education), income sources of each family member, and State of residence of the family. Thus, the data base for the model is large, comprehensive, reasonably current, and State representative. Although the SIE was conducted during 1976, its microrecords can be used in other years as well. By using the Urban Institute TRIM model, the data base can be "aged" to other years. For example, an aged SIE data base underlies the version of the model to be used in analyzing 1980 replacement rates later in this report.

The model's structure is recursive, with three major blocks or modules.<sup>30</sup> The ordering of the modules is as follows: the current labor market module, the UI benefits module, and the income-adjustment module. The first two modules operate entirely with individual, or person, records. After passing through these modules, the person records for all workers with unemployment are matched with their family records, and the combined person-family records serve as inputs into the income-adjustment module. As noted, this module relies heavily upon the Urban Institute TRIM model to estimate the effect of unemployment on net family income.

To give a better idea of the model's structure and the important decision rules simulated within each module, Figure 1 displays selected summary information. The three main modules are identified in the first column. Within the first two modules, the model structure is again recursive and the second column shows the ordering of the endogenous variables. The earlier

FIGURE 1. Structure of the micro simulation model

Specific module	Endogenous or decision variables
Current labor market	Labor force participation, unemployment occurrences, reason for unemployment, duration of unemployment, weeks of employment, weeks in the labor force
Unemployment insurance benefits	Model base-period work experience, UI applications, monetary determinations, nonmonetary determinations, exhaustions, duration of benefits, weekly benefits, total benefits, gross weekly replacement rates
Income-adjustment	Fringe benefits, age-earnings growth, work expenses, other transfer payments, taxes, net weekly replacement rates

variables in the lists (for example, reason for unemployment) enter into the determination of later variables (for example, duration of unemployment) along with such worker characteristics as age, sex, race, and a cyclical variable (the unemployment rate for white men aged 35 to 54). Essentially, the current labor market module simulates all the variables necessary for describing a worker's annual labor market experiences, while the benefits module focuses on the experience of the unemployed with the UI program in their State.

Fringe benefits, work expenses, and age-related earnings growth are determined simultaneously in the income-adjustment module. Other transfer payments are then determined in an order that reflects their respective program definitions of countable income. Specifically, SSI payments are simulated first, then AFDC, and food stamps last. Finally, the income-adjustment module simulates (Federal and State) income taxes and employee payroll taxes. All of these determinations are made by passing combined person-family records through a version of the TRIM model.

The simulated outputs of each module can be summarized as follows. The current labor market module yields annual work experience estimates of labor force participation, workers with unemployment, total weeks of unemployment, and total weeks of employment. These, and all later outputs, can be displayed by State or nationally. The benefits module then makes estimates of various State UI program-related variables, such as number of covered workers, number of applicants for benefits, number of monetary and nonmonetary determinations, weeks of benefits, number of exhaustions, average weekly benefits, and total benefit outlays. Also, when outputs from the first two modules are combined, they can yield additional significant measures, such as weeks compensated as a fraction of total weeks unemployed and gross replacement rates (weekly benefits as a fraction of average weekly wages or  $r_{GN}$ ). Primary outputs of the income-adjustment module include measures of net replacement rates (weekly benefits as a fraction of the net weekly income loss due to unemployment or  $r_{NN}$ ).

A unique feature of the benefits module is a rectangular matrix of parameters pertaining to the important statutory provisions and administrative features of each State's program. There are 51 rows (one for each State plus the District of Columbia) and 45 columns of parameters covering such items as base-period earnings requirements, benefit formulas, disqualification rates, penalty periods, and maximum benefit durations. Accompanying the matrix is a simple algorithm that allows the user to change individual matrix entries—entire rows or entire columns or both. Up to 10 different configurations of this parameter matrix can be examined in a single pass through the benefits module. Each of the 10 options may contain several hundred modifications of the baseline matrix, which has the

historic program parameters for the year of interest. The policy-analytic capabilities of the model are greatly facilitated by this algorithm. Using the complete model, the range of policy analyses includes not only cost estimates but also estimates of the distributional consequences of changes in the State UI program.

## 1980 Replacement Rates

The plan of the empirical analysis is very straightforward. An initial pass is made through each of the model's three modules. Then, using a given set of outputs from the first and third modules, additional simulations are conducted with the second module (the UI benefits module). In each pass through the benefits module, changes are made in some key parameters of the State UI program, and outputs are subsequently summarized with a set of replacement-rate tabulations. Selected summaries of the detailed tabulations appear in Tables 1 through 7.

Of the full-model simulations, which yield 1980 replacement-rate estimates, particular attention will be paid to a baseline simulation that uses a "best" estimate of the 1980 unemployment rate and the actual 1980 State UI program parameters. Outputs from this simulation represent the author's best estimate of how the program will actually function this year. Before discussing the simulation results, however, some background issues that underlie the simulations must be addressed.

### Background issues

When this report was written, seven of the monthly unemployment rate estimates for 1980 were known. The average rate for the first 6 months was 6.9 percent and 7.8 percent in July. Estimates of the annual unemployment rate must be tentative because it was not clear whether the labor market had bottomed out. Unemployment rates could be much higher by the end of the year than the 7.8 percent rate of July.

It seems likely that the 1980 annual rate will be in the range from 7.4 to 8.0 percent. The author has assumed a 1980 rate of 7.8 percent, even though 7.8 is somewhat on the high side of this overall range. Adult men seem to be having particularly severe unemployment experiences in 1980. Since adult men are the demographic group most likely to collect State UI benefits, the author wanted the model to have the appropriate number of adult male beneficiaries. One way to achieve this was to set the model's unemployment rate somewhat higher than the average of the current estimates for 1980.

The model estimates of UI benefit outlays for 1980 assume that benefits in each State are paid by the regular program and the Federal-State extended benefit (EB) program. As of July 19, 1980, EB payments

were being made in 20 States, and, by the end of the year, such payments will probably be made in all States.

When the full micro simulation model is used to forecast annual budget outlays, it includes macro level adjustments in making the total cost estimate. The macro level adjustments are for benefit amounts not derived from the individual microrecords. After benefits have been simulated for the microrecords and summed, the macro adjustments are proportionate add-ons that vary by State. In the aggregate, the macro adjustments add about 6 percent to total benefit outlays for 1980.<sup>31</sup> The 1980 simulations in this report will not include such macro adjustments. Thus, aggregate benefits are simply the sum of all benefits as simulated on the microrecords.

The procedures for EB payments and macro adjustments will affect the broad replacement rates but not the narrow replacement rates to be reported here. In both instances, the level of weekly benefits paid to individual workers is unaffected. What is affected is the estimated number of weeks compensated in 1980. The errors introduced by the two procedures are partially offsetting. Because the macro adjustments are quantitatively more important, there is a downward bias in the macro broad replacement-rate estimates of, perhaps, 3 to 5 percent.

#### The 1980 baseline simulation results

Table 1 presents summary estimates of unemployment, economic losses, and State UI benefits for 1980. The first column shows unemployment estimates for all workers, while the second column refers to experienced unemployed workers. The difference between the two is unemployed new entrants into the labor force. This group of unemployed is not relevant for State UI benefit issues, because of their lack of substantial previous work experience.

Experienced unemployed workers are defined to be job losers, job leavers, and labor force reentrants. All have held paid jobs sometime prior to the onset of unemployment. For such persons, it is possible to measure the economic losses associated with their unemployment. For all experienced workers, the wage losses associated with unemployment were estimated to be \$83.475 billion, while net income losses were \$80.613 billion. It is surprising that the net income losses were almost as large as the wage losses. The explanation for this result will be discussed later.

The last two columns disaggregate experienced workers according to their State UI beneficiary status. The model estimates about 9 million beneficiaries and about 12 million nonbeneficiaries.<sup>32</sup> Among the experienced unemployed, program beneficiaries are generally older and higher-wage workers when compared to nonbene-

TABLE 1. Estimated macro replacement rates, 1980<sup>1</sup>

Item	All unemployed workers	Experienced unemployed workers	State UI beneficiaries	Non-beneficiaries of State UI
<b>Economic losses</b>				
Number with unemployment <sup>2</sup>	23.229	21.090	9.105	11.985
Weeks of unemployment <sup>2</sup>	415.142	378.967	182.465	196.502
Total wage losses <sup>3</sup>	—	83.475	52.935	30.540
Total net income losses <sup>3</sup>	—	80.613	50.878	29.735
Average weekly wage (AWW)	—	220.270	290.110	155.420
Average weekly net income loss (NWI)	—	212.710	278.830	151.320
<b>Benefit payments</b>				
Weeks of State UI benefits <sup>2</sup>	—	147.860	147.860	0
Total State UI benefits <sup>3</sup>	—	14.255	14.255	0
Average weekly benefits (WB)	—	96.410	96.410	0
All other transfer payments <sup>2,3</sup>	—	1.946	1.113	0.833
Total transfer payments <sup>3</sup>	—	16.201	15.368	0.833
<b>Macro replacement rates</b>				
$R_{gn}$ —gross narrow (WB/AWW)	—	—	0.332	—
$R_{gb}$ —gross broad (State UI/total loss)	—	0.171	0.269	—
$R_{nn}$ —net narrow (WB/NWI)	—	—	0.346	—
$R_{nb}$ —net broad (State UI/net loss)	—	0.177	0.280	—
$R_{gt}$ —gross total (total transfers/total loss)	—	0.194	0.290	0.027
$R_{nt}$ —net total (total transfers/with unemployment)	—	0.201	0.302	0.028

<sup>1</sup> All data in the table are based on output from the full micro simulation model.

<sup>2</sup> In millions.

<sup>3</sup> In billions of dollars.

<sup>4</sup> Includes payments from private SUB programs as well as transfers from the AFDC, SSI, and food stamp programs.

ficiaries. The estimated average weekly wages of the two groups are respectively \$290.11 and \$155.42.

The middle rows of Table 1 show summary data on the benefit experiences of the unemployed workers. Aggregate State UI benefits are \$14.255 billion, and average weekly benefits are \$96.41. There is an additional \$1.946 billion of other transfer payments, which included SUB payments and government transfers from the SSI, AFDC, and food stamp programs. These amounts are marginal outlays directly attributable to the workers' unemployment. In all cases where government transfers are received prior to the onset of unemployment, only the extra weekly transfer amounts

are measured in Table 1. It is clear that the bulk of all transfers are paid by State UI, 88 percent of the \$16.201 billion total.

Table 1 also shows that for most beneficiaries, weeks of unemployment are compensated. Of their 182 million weeks of unemployment, benefits were received in 148 million weeks or 81 percent of the total. The combined effects of waiting periods, application delays, benefit exhaustions, and so on, account for only 19 percent of these workers' weeks of unemployment. Even if there were no EB programs in 1980, 69.5 percent of the beneficiaries' weeks would be compensated.<sup>33</sup>

One surprising aspect of Table 1 is that the total net income losses are nearly as large as the total wage losses due to unemployment. The explanation for this result warrants additional comment. Recall the relation that links the two,  $k = NWY/AWW$ , where  $NWY$  is the net weekly income loss and  $AWW$  is the average weekly wage. The term  $k$  can be decomposed into its component parts:

$$k = 1 - t - x + s + p, \quad (11)$$

where  $t$  is the marginal tax rate,  $x$  is work expenses as a proportion of the average weekly wage,  $s$  is fringe benefit losses as a proportion of the weekly wage, and  $p$  is forgone wage growth as a proportion of the average weekly wage. In the aggregate,  $k$  is close to unity across all experienced unemployed workers.

Table 2 shows the means of the micro values of  $k$  and its components for three groups: experienced unemployed workers, State UI beneficiaries, and State UI nonbeneficiaries. Of the individual components in the definition of  $k$ , the largest is the marginal tax rate, which is the sum of the marginal rates for Federal and State income taxes and for payroll taxes. Its mean value is 0.294 for all experienced unemployed workers. The second and third largest components of  $k$  are the fringe benefit losses ( $s$ ) and forgone money wage growth ( $p$ ). Combined, they are larger than the average marginal tax rate. Note that the wage growth proportion is especially large for nonbeneficiaries (0.228). Many of these are young workers whose age-earnings profiles slope upward very steeply. Because  $s$  and  $p$  are so large, then, the mean value of  $k$  is also large. For all experienced unemployed, it equals 0.955, while it equals 0.924 and 0.978, respectively, for beneficiaries and nonbeneficiaries. Much of the explanation for these large  $k$  values in 1980 lies in the combined effects of a high inflation rate and a disproportionate concentration of unemployment among younger workers. These factors cause the micro values of  $p$  (hence of  $k$ ) to be large.

The mean values of  $k$ , shown in Table 2, mask a great deal of variation in  $k$  that exists at the micro level. In fact, some values of  $k$  are negative and a large proportion have values larger than 1. All four of the component parts contribute to variation in  $k$  at the micro

TABLE 2. Factors responsible for differences between the average weekly wages and net weekly income losses for unemployed workers, 1980<sup>1</sup>

Factor	Experienced unemployed workers	State UI beneficiaries	Nonbeneficiaries of State UI
Marginal tax rate ( $t$ )	.294	.297	.292
Work expense ratio ( $x$ )	.084	.081	.086
Fringe-benefit loss ratio ( $s$ )	.132	.133	.131
Money wage growth ratio ( $p$ )	.203	.169	.228
Ratio of the net weekly income loss to the average weekly wage ( $k$ ) <sup>2</sup>	.955	.924	.978

<sup>1</sup> All data are means of micro observations that were measured as a proportion of the unemployed worker's average weekly wage in the base period. Data are from the full micro simulation model.

<sup>2</sup>  $1 - t - x + s + p$ .

level. Because of this large variance in  $k$ , the net replacement rates for individual workers display much more variation than do the gross replacement rates. This point will be reemphasized later.

### Macro replacement rates

Estimates of macro replacement rates for each of the six replacement-rate concepts defined earlier appear in the bottom lines of Table 1. For all experienced workers, aggregate State UI benefits represent 0.171 of their total wage losses, that is,  $R_{GB} = 0.171$ . This gross replacement rate is increased to 0.194 when other transfers are added to State UI benefits. Only about one-fifth of all wage losses due to unemployment are replaced by all transfer programs combined. Similar replacement rates are also observed when aggregate benefits are compared to aggregate net income losses; that is,  $R_{NB} = 0.177$  and  $R_{NT} = 0.201$ .

These aggregate replacement rates for all experienced workers can be viewed as averages of the rates for beneficiaries and nonbeneficiaries. The third column of Table 1 displays the macro replacement rates for beneficiaries. The ratio of total benefits to total wage losses ( $R_{GB}$ ) for these workers is 0.269. For compensated weeks of unemployment ( $R_{GN}$ ), the gross replacement rate is 0.332. Thus, the effect of considering the uncompensated weeks of unemployment is to reduce the macro gross replacement rate from 0.332 to 0.269 among beneficiaries. The corresponding net replacement rates are somewhat higher, that is,  $R_{NN} = 0.346$  and  $R_{NB} = 0.289$ . The macro net broad replacement-rate estimate for beneficiaries in 1980 (0.280) indicates that program benefits replace less than 30 percent of the total net income loss due to unemployment.

State UI beneficiaries also obtain more than half of the other transfers paid because of unemployment. In the aggregate, all transfers replace 0.302 of the net income loss experienced by State UI beneficiaries. The other transfers only replace 0.028 of the net income loss experienced by unemployed nonbeneficiaries.

As noted earlier, publications of the UIS frequently measure replacement rates as the ratio of average weekly benefits to the average weekly wage, that is, as a gross narrow replacement rate ( $R_{GN}$ ). In these publications, the weekly wage refers to the average for all covered workers in the current year, whereas  $R_{GN}$  in Table 1 uses the average wage of beneficiaries in the base period (\$290.11.) An estimate of the covered worker average weekly wage in 1979 is \$247.33.<sup>34</sup> When this is increased by 10 percent, it yields an estimate of \$272.06 for 1980. If the Table 1 weekly benefit amount is then divided by \$272.06, the resulting estimate of  $R_{GN}$  is 0.354. This is very close to the estimate of 0.332 that appears in Table 1. The similarity is due to two offsetting factors: the weekly wage of all covered workers is considerably lower than the weekly wage of beneficiaries, but inflation between the base period and the current year eliminates much of the differential.

#### Micro replacement rates: means and standard deviations

Here, the experiences of individual workers will be considered by examining means and standard deviations of replacement-rate distributions. The discussion of micro replacement rates centers on program beneficiaries and benefits paid under the State UI programs. The macro replacement rates discussed in the preceding paragraphs combine individual worker experiences by using weights the size of the individual's economic losses. In contrast, average micro rates weight each worker's experience equally, regardless of the weekly wage (net income loss) or the duration of unemployment. By displaying standard deviations as well as means, attention will be drawn to the diversity of worker experiences, a facet that macro replacement rates cannot consider.

At the micro level, one technical aspect of net-replacement-rate calculations should be noted. The proportion  $k$  (see relation 11), which relates net weekly income losses to average weekly wages, can be very small and even negative for individual workers. This can occur through a combination of high marginal tax rates and large work expenses. Small and negative values of  $k$  increase both the means and standard deviations of net-replacement-rate distributions. To prevent a few observations from having large effects on the micro distributions, cases in which the value of  $k$  was smaller than 0.25 have been excluded, a decision that affects less than 1 percent of the micro observations. Thus, the results presented are based on 9.024

million (or 99.1 percent) of the 9.105 million State UI beneficiaries referred to in Table 1.<sup>35</sup>

Table 3 displays summary information on the underlying replacement-rate distributions. National baseline simulation estimates are shown for the four replacement-rate concepts discussed earlier and compared in relations 9 and 10, ( $r_{GN}$ ,  $r_{GB}$ ,  $r_{NN}$ , and  $r_{NB}$ ). Means, standard deviations, and a measure of relative replacement-rate variability, the so-called coefficient of variation, are shown. The standard deviation is an absolute measure of replacement-rate variability. When two times its value is added and subtracted from the mean, the resulting interval will contain more than 90 percent of the individual replacement-rate values. Thus, for example, if the mean is 0.408, this interval extends from 0.106 to 0.710. The coefficient of variation, on the other hand, measures relative variability as the ratio of the standard deviation to the mean of the distribution.

The mean replacement rates conform to the a priori rankings shown in relation 10 earlier. The net narrow replacement rate is the highest (0.457), the gross broad replacement rate the lowest (0.347), and the other two have intermediate values,  $r_{GN} = 0.408$  and  $r_{NB} = 0.392$ . For the typical beneficiary in 1980, State UI benefits replace about 40 percent of the net income loss experienced over the entire duration of unemployment.

The rankings of the standard deviations also agree with a priori expectations. There are five possible reasons for variation in  $r_{GN}$ , the ratio of weekly benefits to the weekly wage. Three are dependents' benefits, weekly benefit minimums, and weekly benefit maximums. The fourth is differences between the worker's weekly wage and the base-period earnings amount used to determine weekly benefits. In States that base benefits on high-quarter earnings, for example, this earnings amount can exceed the product of 13 times the average weekly wage and cause  $r_{GN}$  to exceed the statutory replacement rate. Finally, there is interstate variation in the statutory replacement rates themselves. In 1980,

TABLE 3. Estimated micro replacement rates, 1980<sup>1</sup>

Item	Replacement-rate concept			
	Gross narrow <sup>2</sup> $r_{GN}$	Gross broad <sup>3</sup> $r_{GB}$	Net narrow <sup>4</sup> $r_{NN}$	Net broad <sup>5</sup> $r_{NB}$
Mean	0.408	0.347	0.457	0.391
Standard deviation	0.151	0.156	0.224	0.216
Coefficient of variation <sup>6</sup>	0.370	0.450	0.490	0.552

<sup>1</sup> Based on the full micro simulation model.

<sup>2</sup>  $WB/AWW$ .

<sup>3</sup>  $f \times r_{GN}$ .

<sup>4</sup>  $(1/k)r_{GN}$ .

<sup>5</sup>  $(f/k)r_{GN}$ .

<sup>6</sup> Standard deviation/mean.

for example, these rates range from a low of 0.416 in California to 0.667 in New Jersey.

The other three replacement rates have variation due to these five factors, plus one or two other sources of variation at the micro level. Specifically, variation in  $r_{GB}$  will be affected by variation in  $f$ , the fraction of time in benefit status;  $r_{NN}$  will be affected by  $k$ , the ratio of the net weekly income loss to the average weekly wage; and  $r_{NB}$  will be affected by both  $f$  and  $k$ . Because  $r_{GN}$  has the fewest possible sources of variation, it displays the smallest standard deviation (0.151) in Table 3, while the deviations for  $r_{GB}$ ,  $r_{NN}$ , and  $r_{NB}$  are respectively 0.156, 0.224, and 0.216. The rankings of the coefficients of variation clearly reflect the relative amounts of variation in the four series;  $r_{GN}$  has the smallest (0.370) and  $r_{NB}$  has the largest (0.552).

An interesting feature of Table 3 is the comparatively small range covered by the four mean replacement-rate estimates, from 0.347 to 0.457. Since the four are linked definitionally by the ratios  $f$  and  $k$  (recall relation 9), it is clear that both ratios have quite large average values in these micro data. In fact, the mean value of  $k$  for all beneficiaries was shown to be 0.924 in Table 2, and a tabulation showed the corresponding mean for  $f$  was 0.853. The economic importance of these two mean values should be stressed. Among beneficiaries, most weeks of unemployment are compensated; that is, the mean of  $f$  is 0.853. And among beneficiaries, the weekly net income losses due to unemployment are nearly as large as the average losses in weekly wages; that is, the mean of  $k$  is 0.924.

Earlier, it was argued that the net broad replacement rate ( $r_{NB}$ ) is the best single measure of benefit adequacy because it considers uncompensated weeks of unemployment and it uses weekly net income as the measure of economic loss. It is interesting that on a micro basis the mean estimate of  $r_{NB}$  among beneficiaries (0.391) is virtually identical to the mean gross narrow replacement rate ( $r_{GN}$ ), which considers neither of these two refinements in measurement. Because they have nearly equal mean values, the separate effects of  $f$  and  $k$  roughly cancel each other and cause the means of  $r_{NB}$  and  $r_{GN}$  to almost equal. When computed from micro observations, the mean of  $r_{GN}$  is a close approximation to the average proportion of net-income-loss replacement among State UI beneficiaries.<sup>36</sup>

The estimated mean net narrow replacement rate ( $r_{NN}$ ) of 0.457 in Table 3 is much lower than an estimate from 0.60 to 0.70 that has been suggested by Feldstein.<sup>37</sup> In computing the net income loss due to unemployment, he considered only taxes and not work expenses, fringe benefit losses, or money wage growth. Using terms introduced earlier, he defined the net income loss as follows:

$$NWY = (1 - t) AWW - k' AWW \quad (12)$$

Since  $k'$  in equation 12 subtracts the marginal tax rate

on earnings, its mean will be much smaller than 1. Across all beneficiaries the mean of  $(1 - t)$  or  $k'$  is 0.703. (See Table 2, where the mean value of  $t$  is 0.297.) When net narrow replacement rates were re-computed by using this definition of the weekly net income loss, they had a mean value of 0.590. The difference between this 0.590 and the 0.457 of Table 3 is due entirely to the way net income losses were measured.

A main feature of the mean replacement rates in Table 3 is that they are rather low. The mean net broad replacement rate among beneficiaries in 1980 is 0.391. For the typical beneficiary, about two-fifths of the net income loss caused by unemployment is replaced by State UI program benefits. For weeks that are compensated, the average replacement is somewhat less than 0.5 (and not 0.6 or 0.7), when the appropriate measure of net income loss is used; that is,  $k = 1 - t - x + s + p$ , not  $k' = 1 - t$ .

Table 3 also suggests a wide variability in individual beneficiaries' replacement-rate experiences. Some sources of this variability are explored in the next part of this report.

#### Interstate replacement-rate variability

The estimated macro replacement rates and average micro replacement rates of Tables 1 and 3 are averages of worker replacement-rate experiences in the individual States. Because the model simulates such rates for all 50 States plus the District of Columbia, one can examine model outputs by State to answer several questions about the program. An issue to be examined here is the contribution of differences in State laws to interstate replacement-rate variation.

Table 4 displays average micro replacement rates by State for 1980. The second through fifth columns show, respectively, the means of  $r_{GN}$ ,  $r_{GB}$ ,  $r_{NN}$ , and  $r_{NB}$ . Observe that the national averages in the bottom row of Table 4 repeat the first row of Table 3. Besides these four sets of means, Table 4 displays the gross statutory replacement rates for each State. In all five columns, there is an obvious wide range of interstate replacement-rate variability.

One particularly interesting comparison in Table 4 involves the first two columns. The gross statutory replacement rate shows the rate mandated by each State program. The gross narrow replacement rate for the individual worker will equal the statutory replacement rate when base-period earnings are an annualized multiple of the weekly wage<sup>38</sup> and the worker does not receive the weekly maximum benefit, the minimum benefit, or dependents' benefits. The latter two provisions cause  $r_{GN}$  to exceed  $r_{GS}$ , while the weekly maximum causes  $r_{GN}$  to be smaller than  $r_{GS}$ . By comparing the mean of  $r_{GN}$  with  $r_{GS}$ , one can assess the relative importance of the weekly minimum and dependents'

TABLE 4. Statutory replacement rates and mean replacement rates for beneficiaries, by State, 1980 <sup>1</sup>

State	Mean replacement rates				
	Gross statutory $r_{GS}$	Gross narrow <sup>2</sup> $r_{GN}$	Gross broad <sup>3</sup> $r_{GB}$	Net narrow <sup>4</sup> $r_{NN}$	Net broad <sup>5</sup> $r_{NB}$
Total	—	0.408	0.347	0.457	0.391
AL	0.546	0.378	0.336	0.415	0.369
AK	0.572	0.217	0.188	0.261	0.229
AZ	0.520	0.314	0.265	0.371	0.315
AR	0.494	0.457	0.390	0.513	0.436
CA	0.416	0.339	0.300	0.402	0.355
CO	0.598	0.489	0.314	0.565	0.366
CT	0.494	0.392	0.346	0.418	0.367
DE	0.494	0.431	0.391	0.493	0.447
DC	0.494	0.411	0.339	0.445	0.370
FL	0.500	0.443	0.366	0.458	0.381
GA	0.520	0.326	0.260	0.365	0.292
HI	0.520	0.396	0.335	0.506	0.432
ID	0.494	0.396	0.311	0.461	0.366
IL	0.500	0.447	0.394	0.472	0.415
IN	0.520	0.288	0.248	0.323	0.278
IA	0.650	0.512	0.443	0.577	0.504
KS	0.520	0.445	0.346	0.480	0.377
KY	0.572	0.428	0.391	0.495	0.455
LA	0.520	0.428	0.375	0.447	0.393
ME	0.598	0.474	0.411	0.505	0.441
MD	0.546	0.365	0.288	0.408	0.323
MA	0.494	0.430	0.382	0.492	0.437
MI	0.600	0.289	0.217	0.343	0.261
MN	0.500	0.461	0.414	0.611	0.553
MS	0.494	0.401	0.317	0.417	0.333
MO	0.650	0.502	0.426	0.531	0.452
MT	0.494	0.394	0.353	0.448	0.403
NE	0.572	0.441	0.289	0.518	0.342
NV	0.520	0.381	0.323	0.433	0.367
NH	0.624	0.455	0.412	0.475	0.429
NJ	0.667	0.505	0.442	0.578	0.509
NM	0.494	0.368	0.272	0.424	0.315
NY	0.500	0.431	0.367	0.495	0.422
NC	0.494	0.460	0.417	0.516	0.470
ND	0.494	0.436	0.393	0.489	0.442
OH	0.500	0.360	0.311	0.423	0.365
OK	0.520	0.464	0.385	0.482	0.401
OR	0.624	0.521	0.400	0.595	0.452
PA	0.520	0.464	0.395	0.491	0.420
RI	0.550	0.487	0.430	0.553	0.490
SC	0.494	0.442	0.369	0.503	0.424
SD	0.598	0.454	0.378	0.469	0.392
TN	0.494	0.435	0.388	0.439	0.390
TX	0.520	0.370	0.263	0.383	0.274
UT	0.494	0.432	0.378	0.520	0.454
VT	0.500	0.443	0.400	0.519	0.471
VA	0.520	0.440	0.396	0.495	0.443
WA	0.520	0.471	0.413	0.490	0.432
WV	0.468	0.391	0.340	0.414	0.359
WI	0.500	0.474	0.390	0.583	0.484
WY	0.520	0.427	0.327	0.455	0.347

<sup>1</sup> Based on the full micro simulation model.

<sup>2</sup>  $WB/WW$ .

<sup>3</sup>  $f \times r_{GN}$ .

<sup>4</sup>  $(1/k) \times r_{GN}$ .

<sup>5</sup>  $(f/k) \times r_{GN}$ .

benefits versus the weekly maximum in determining  $r_{GN}$ .

For every State, the mean value of  $r_{GN}$  is smaller than  $r_{GS}$ . Thus  $r_{GN}$  for the typical worker is less than the

State's statutory replacement rate. In other words, beneficiaries are much more likely to receive maximum benefits than minimum benefits or dependents' benefits or both. In high-wage States with low weekly maximums (for example, Alaska, Indiana, and Michigan), over two-thirds of beneficiaries receive the maximum.

The model has been used to explore the effects of statutory changes on interstate replacement-rate variation. Simulation experiment 1 changed the State UI statutes in the following four ways: (1) the statutory replacement rate was specified to be 0.50,<sup>39</sup> (2) the weekly benefit maximum was set equal to the State's average weekly wage, (3) the weekly benefit minimum was made equal to 0.05 times the State's average weekly wage, and (4) dependents' benefits were eliminated. All other State UI procedures for determining monetary eligibility, weekly benefits, and disqualification rates were left unchanged. The effect of the four changes is to make State UI a more nationally uniform wage-loss insurance program that pays most beneficiaries half of wage losses. Compared to the current program, weekly maximums are higher and weekly minimums are lower.

On balance, these changes substantially liberalized State UI benefits. Aggregate program outlays for regular State UI and for the EB program combined increased from \$14.255 billion to \$19.726 billion, or by 38.4 percent. Total benefits increased in 50 of the 51 separate State UI programs, with a range of 1.9 to 169.8 percent. In Alaska, Indiana, and Michigan, benefits increased by 169.8, 89.5, and 145.8 percent, respectively.

These changes had a major impact on interstate replacement-rate variation. To illustrate the size of the impact, Table 5 presents summary data on means and standard deviations by using mean micro replacement rates by State. The top half of Table 5 shows results from the 1980 baseline simulation, while the bottom half shows results after making the four indicated changes in the State UI statutes. Each mean in the first line of Table 5 is the simple average of the corresponding 51 State means, which appear in Table 4. Because each State is weighted equally, the Table 5 means can depart somewhat from the national average means, which weights each individual beneficiary equally.

Variation in State UI laws regarding weekly benefits is a major cause for interstate replacement-rate variation. The mean of the statutory rates ( $r_{GS}$ ) exceeds the means of the four empirically estimated rates ( $r_{GN}$ ,  $r_{GB}$ ,  $r_{NN}$ , and  $r_{NB}$ ) by a considerable margin. The ranking among the four is in line with the ranking in Table 3; that is,  $r_{NN}$  is the highest while  $r_{GB}$  is the lowest. All five means display a standard deviation of at least 0.051. Thus, for example, an interval from 0.30 to 0.54 is required to capture 90 percent of the individual States' mean gross narrow replacement rates.

TABLE 5. Effects of mandating uniform State UI benefit statutes on interstate replacement-rate variation <sup>1</sup>

Simulation	Replacement-rate concept				
	Gross statutory $r_{GS}$	Gross narrow <sup>2</sup> $r_{GN}$	Gross broad <sup>3</sup> $r_{GB}$	Net narrow <sup>4</sup> $r_{NN}$	Net broad <sup>5</sup> $r_{NB}$
Baseline simulation					
Mean	0.530	0.420	0.353	0.470	0.397
Standard deviation	0.051	0.061	0.059	0.070	0.067
Coefficient of variation	0.096	0.145	0.167	0.149	0.169
Simulation experiment <sup>6</sup>					
Mean	0.500	0.481	0.408	0.540	0.460
Standard deviation	0	0.019	0.032	0.035	0.043
Coefficient of variation <sup>7</sup>	0	0.040	0.078	0.065	0.093

<sup>1</sup> Based on the full micro simulation model. Means and standard deviations are computed from mean replacement rates for the 51 State UI programs, and each State is weighted equally.

<sup>2</sup>  $WB/WW$ .

<sup>3</sup>  $f \times r_{GN}$ .

<sup>4</sup>  $(1/k)r_{GN}$ .

<sup>5</sup>  $(j/k)r_{GN}$ .

<sup>6</sup> Uniform statutory replacement rates, weekly benefit maxima, weekly benefit minima, and no dependents' benefits.

<sup>7</sup> Standard deviation/mean.

Note that, in the baseline simulation,  $r_{GS}$  displays a standard deviation of 0.051. By making all 51 statutory replacement rates identical (0.50), the corresponding standard deviation in simulation experiment 1 becomes 0. The effect of the four statutory changes on the mean and standard deviation of  $r_{GN}$  is quite pronounced: the mean rises from 0.420 to 0.481, while the standard deviation falls from 0.061 to 0.019. Note that the mean of  $r_{GN}$  in experiment 1 is less than 0.50, indicating that the weekly maximums still cause some replacement rates to fall below 0.50. Those workers affected by these maximums are, of course, high-wage workers.<sup>40</sup>

It should be emphasized that  $r_{GS}$  and  $r_{GN}$  are the two replacement rates most directly under the control of State UI policymakers. Interstate variation in these replacement rates can be sharply reduced by statutory changes. One consequence of such changes would be to sharply reduce interstate variation in all replacement rates. Even though  $r_{GB}$ ,  $r_{NN}$ , and  $r_{NB}$  are not totally influenced by them. Interstate variation in these three replacement rates is now sharply lower, as indicated by the standard deviations in the experiment relative to those in the baseline simulation. Thus, in this simulation experiment, the mean of  $r_{NB}$  increases from 0.397 to 0.460, while the standard deviation falls from 0.067 to 0.043.

Not only is interstate replacement-rate variation (as reflected by the Table 5 standard deviations) sharply reduced by these statutory changes, but interpersonal

variation among individual beneficiaries also is sharply reduced. Model outputs from this same simulation experiment can be compared directly with the means and standard deviations of Table 3. For all beneficiaries, the effect of mandating uniform statutes in these four areas is to increase the mean gross narrow replacement rate from 0.408 to 0.488 while reducing its standard deviation from 0.151 to 0.077. The mean of  $r_{NB}$ , the net broad replacement rate, was increased from 0.391 to 0.470 by this same simulation experiment, while its standard deviation decreased from 0.211 to 0.193. Thus, the coefficient of variation,  $r_{NB}$ , was reduced from 0.552 to 0.411 by mandating uniform benefit standards. Differences in State UI statutes are clearly a major factor behind replacement-rate variation at the micro level.

There are at least two reasons to highlight the impact of statutory changes on interstate and on interpersonal replacement-rate variation. First, there is a question of equity. Many would argue that similarly stationed workers within a State and across States should receive equal treatment under the State UI programs. They would also argue that equalizing interstate and interpersonal replacement rates increases the equity in program benefits. Second, there is the effect of benefits on work disincentives. Workers experiencing very high replacement rates are the ones most likely to artificially prolong their unemployment durations. When replacement-rate variation is reduced through policy actions, the numbers experiencing very high rates ( $r_{NN}$  more than 70 percent, for example) are reduced, thus reducing some labor supply disincentives. Because both of these considerations are important, the effects of policies on replacement-rate variation will continue to be noted here.

### An analysis of other State UI program reforms

Simulation experiment 1 is an example of a reform that mandates uniform standards across the 51 State programs. A second approach to State UI program reform is to mandate minimum standards of performance, which permits States to exceed the standards. Minimum standards for weekly benefits have been recommended by the National Commission on Unemployment Compensation. Here, the effects of three different reform scenarios are simulated. The analysis will emphasize the effects of the reforms on total program costs, average replacement rates, and replacement-rate variation.

The policy changes in the simulation experiments are quite straightforward. Simulation experiment 2 makes two modifications in current benefit statutes. The statutory replacement rate is mandated to be at least 50 percent, and the weekly benefit maximum is at least two-thirds of the State's average weekly wage. Simulation experiment 3 adds to these two changes a benefit-duration provision. For each 3 weeks of work

in the base period, up to 39 weeks, the maximum benefit duration is two-thirds of the total weeks worked. Compared to the current program, experiment 3 has more generous weekly benefit provisions but somewhat less generous benefit-duration provisions. In experiments 2 and 3, the current program provisions regarding monetary eligibility are retained. Simulation experiment 4 drops all base-period earnings requirements for monetary eligibility and adds a requirement that the unemployed worker have 15 weeks or more of employment in the base period. It retains the provisions of experiment 3 regarding weekly benefit standards and benefit duration.

Table 6 displays summary data from the three simulation experiments. First, information on the baseline simulation from Tables 1 and 3 is repeated. Then, results from the three new experiments follow. The last three lines of the Table display comparable results from simulation experiment 1, which mandated uniform weekly benefit standards. For all five simulations, there are three columns of macro results (total benefits and two macro replacement rates) and four columns of results based on micro replacement-rate data.

Aggregate program outlays under the minimum standards of simulation experiment 2 are \$18.560 billion, or 30.2 percent above the baseline simulation. As

a consequence, the macro net broad replacement rates of experiment 2 are 0.230 and 0.364 for all experienced workers and for State UI beneficiaries, respectively. Since only two States currently have statutory replacement rates less than 0.49 (0.416 in California and 0.468 in West Virginia), almost all of the increase in benefits is attributable to the higher weekly benefit maximums. The effect of this statutory change on the proportion of beneficiaries receiving the maximum weekly benefit is quite dramatic. The national proportion falls from 0.532 in the baseline simulation to 0.277 under this proposed benefit standard. Another way to emphasize the effect of the liberalized standard is to note that more than half of all beneficiaries (that is, those previously receiving the maximum weekly benefit), would receive a higher weekly benefit because of the higher maximums.

Mandating higher maximums has a strong effect on the micro replacement rates presented in Table 6. All four means are at least 19 percent above their respective counterparts in the baseline simulation. For the typical beneficiary, program benefits now replace 47.0 percent of the net income loss due to unemployment; that is,  $r_{NB} = 0.470$ .

As noted, the presence of the weekly maximum causes  $r_{GN}$  to fall below the State's statutory replace-

TABLE 6. Simulated replacement rates in 1980 under alternative State UI reform scenarios <sup>1</sup>

Statistic	Total benefit outlays (in billions)	Macro rates		Micro rates			
		Net broad: experienced unemployed $R_{NB}$	Net broad: State UI beneficiaries $R_{BN}$	Gross narrow $r_{GN}$	Gross broad $r_{GB}$	Net narrow $r_{NN}$	Net broad $r_{NB}$
Baseline simulation							
Mean	\$14.255	0.177	0.280	0.408	0.347	0.457	0.391
Coefficient of variation				0.151	0.156	0.224	0.216
Standard deviation				0.370	0.450	0.490	0.552
Experiment 2 <sup>2</sup>							
Mean	18.560	0.230	0.364	0.488	0.416	0.550	0.470
Standard deviation				0.118	0.147	0.204	0.212
Coefficient of variation				0.241	0.353	0.371	0.451
Experiment 3 <sup>3</sup>							
Mean	18.302	0.227	0.360	0.488	0.414	0.550	0.467
Standard deviation				0.118	0.151	0.204	0.217
Coefficient of variation				0.241	0.365	0.371	0.465
Experiment 4 <sup>4</sup>							
Mean	18.259	0.227	0.366	0.497	0.421	0.562	0.478
Standard deviation				0.130	0.158	0.238	0.243
Coefficient of variation				0.262	0.375	0.423	0.508
Experiment 1 <sup>5</sup>							
Mean	19.726	0.245	0.388	0.486	0.415	0.549	0.470
Standard deviation				0.077	0.126	0.171	0.193
Coefficient of variation				0.158	0.303	0.311	0.411

<sup>1</sup> Based on the full micro simulation model.

<sup>2</sup> Minimum benefit standards on the statutory rate (0.5) and maximum weekly benefits (0.675 State *AWW*).

<sup>3</sup> Minimum benefit standards and a 2/3 maximum duration rule.

<sup>4</sup> Minimum benefit standards, a 2/3 maximum duration rule, and no monetary qualifying requirements.

<sup>5</sup> Uniform benefit standards: statutory rate (0.5), weekly minimum (0.05), weekly maximum (State *AWW*), and no dependents' benefits.

ment rate. When the maximum is raised as in experiment 2, it mainly affects workers in one part of the replacement-rate distribution—those with rates less than the mean. Raising their rates while leaving others unaffected not only increases the mean of the entire distribution, but it reduces the standard deviation. This second effect is apparent when the standard deviations of the baseline and experiment 2 simulations are compared. For  $r_{GN}$ , the standard deviation falls from 0.151 to 0.118. The effects on the other three standard deviations, however, are proportionately much smaller. Since all of the means are increased by this policy change, the amount of relative variation is now much smaller across all four replacement-rate distributions. The experiment 2 coefficients of variation are from 18 to 35 percent smaller than their counterparts in the baseline simulation.

A second interesting comparison in Table 6 involves simulation experiments 1 and 2. Experiment 1 is the more costly of the two, \$19.726 versus \$18.560 billion in aggregate benefits, and the one with higher macro replacement rates. However, the mean micro replacement rates in the two experiments are virtually identical. This holds true for comparisons of all four micro rates in Table 6. Although the means of the micro distributions are virtually identical, the standard deviations are uniformly smaller under experiment 1. Thus, both absolute and relative replacement-rate variability are smaller under this program of uniform benefit standards.

The explanation for this result is straightforward. The uniform standards program has many more workers with gross narrow replacement rates equal to the statutory rate, and it has less interstate variation in the statutory rates. For example, because it has a higher weekly maximum, only 7.7 percent of beneficiaries are paid the maximum in experiment 1, whereas 27.7 percent receive the maximum in experiment 2. Also, fewer workers experience very high replacement rates in experiment 1 because the weekly benefit minimums are uniformly lower and because there are no dependents' benefits. The effects of these differing statutory provisions are most pronounced in the comparison of the standard deviations for  $r_{GN}$  (0.77 versus 0.118).

Three concluding statements about the comparative results from experiments 1 and 2 are in order. First, other things being equal, a uniform benefit standards program will cause more reduction in replacement-rate variation than will a minimum standards program. Second, State UI statutory changes will have proportionately larger effects on the variability of the replacement rate, which is most closely related to program statutes, namely the gross narrow replacement rate. Third, only by examining both macro and micro replacement rates can one fully evaluate and properly interpret the impact of a specific State UI program reform.

Although simulation experiment 3 has more stringent maximum-benefit-duration requirements, its aggregate benefits and macro replacement rates are only 1.4 percent lower than those of experiment 2. Because this program affects only benefit durations, the means and standard deviations of the narrow micro replacement rates are identical to those of experiment 2. Although the two broad micro replacement rates display somewhat more variability in experiment 3, the amount of increased variation is quite modest; that is, 0.151 versus 0.147 when the standard deviations of  $r_{GB}$  are compared. Both the macro and micro effects of changing the maximum duration statutes are exceedingly modest.

Experiment 4 drops all the minimum earnings requirements for monetary eligibility and substitutes a requirement of 15 weeks of employment in the base period. Although the eligibility status of individual workers is affected by this change, the aggregate impact on the number of beneficiaries and program costs is small. The aggregate costs of experiments 3 and 4, respectively \$18.302 and \$18.259 billion, are nearly identical. An interesting contrast emerges, however, in the two macro replacement rates. The rate for all experienced workers is not affected (0.227), while the rate for UI beneficiaries actually rises somewhat to 0.366. The explanation for this increase is a small change in the composition of the beneficiary population. On average, the newly eligible workers earn lower weekly wages than those made ineligible by the weeks-worked qualifying requirement. As a consequence, the total net income loss for beneficiaries in experiment 4 is \$49.883 billion versus \$50.878 billion in experiment 3.

This change in the composition of the beneficiary population also affects the micro replacement rates. Their means rise in experiment 4 because there are now more low-wage workers receiving weekly benefit minimums. The means in experiment 4 are about 2 percent higher than the comparable means in experiment 3. Note that the standard deviations also are increased by roughly 10 percent in experiment 4.<sup>41</sup> Thus, there is somewhat more relative replacement-rate variability due to this compositional change. To prevent such high replacement rates from occurring, it appears that the weeks-worked qualifying requirement should be combined with a reduction in the weekly benefit minimum or in dependents' benefits or in both.

Considering experiments 2 through 4, it is clear that the most important of the simulated program modifications is the increase in the weekly maximums to two-thirds of the States' average weekly wages. This modification raises macro and micro replacement rates and reduces the amount of replacement-rate variation. Compared with the effects of this change, the aggregate consequences of changing the benefit-duration statutes and the monetary eligibility statutes are exceedingly modest. From experiment 4, however, it is

clear that a policy with very small cost implications can have a noticeable effect on replacement-rate variation. The contrast in these results illustrates how the simulation model can be used to evaluate the impacts of alternative State UI policy initiatives.

### Combined reform strategies

The preceding analysis examined some consequences of policy changes that operated solely on statutory provisions of the State UI program. Here, the effects of statutory changes combined with alternative tax treatments of UI benefits are explored. As previously mentioned, since 1979, half of UI benefits have been taxable under the Federal personal income tax for high-income tax filing units. The income cutoffs are \$20,000 for single individuals and \$25,000 for couples who file jointly.

The analysis considers three possible tax treatments of UI benefits: tax-free benefits, current income tax treatment, and fully taxable benefits. In the third alternative, benefits are a component of ordinary income and, like wages and other earnings, subject to a top marginal rate of 50 percent under the Federal personal income tax. To place the effects of the three possible tax treatments into perspective, Table 7 shows summary results from the baseline 1980 simulation. After-tax UI benefits are used in all of the benefit and replacement-rate estimates appearing in Table 7.

Table 7 shows that the current tax law raises \$0.554 billion and reduces net benefits from \$14.255 to \$13.701 billion. As a consequence, all macro replacement rates and mean micro replacement rates are reduced. Because the current tax law reduces benefits only modestly, however, all measures of average replacement show small reductions in the range of from 4 to 5 percent.

The changes in the replacement-rate standard deviations are in line with a priori expectations. The current law increases them modestly for the two gross replacement rates and reduces them modestly for the two net rates. For the gross rates, the current law introduces variation (caused by tax rates) into some of the replacement-rate numerators without affecting the denominators, and thus increases overall variation. For the net rates, it introduces tax variation that is already present in the replacement-rate denominators, and thus reduces overall variation. In all four, however, the effects of the current law are again small (changes of from 1 to 5 percent), because the bulk of UI benefits are not taxable. The \$0.554 billion is generated from roughly \$1.5 billion of taxable UI benefits.

Full taxation of UI benefits has much larger effects on replacement rates. Net benefits to workers fall from \$14.255 to \$11.268 billion, or by 20 percent, and average replacement rates range from 20 to 25 percent. The mean net broad micro replacement rate falls to 0.294, or by 25 percent. All standard deviations also

TABLE 7. The effects of taxes on State UI replacement rates in 1980 <sup>1</sup>

Statistic	Total net benefit outlays (in billions)	Macro rates		Micro rates			
		Net broad: experienced unemployed $R_{NB}$	Net broad: State UI beneficiaries $R_{BN}$	Gross narrow $r_{GN}$	Gross broad $r_{GB}$	Net narrow $r_{NN}$	Net broad $r_{NB}$
Baseline simulation							
Mean	\$14.255	0.177	0.280	0.408	0.347	0.457	0.391
Standard deviation				0.151	0.156	0.224	0.216
Coefficient of variation				0.370	0.450	0.490	0.552
Baseline simulation: Current tax treatment of UI benefits							
Mean	13.701	0.170	0.269	0.392	0.334	0.436	0.372
Standard deviation				0.156	0.158	0.214	0.215
Coefficient of variation				0.398	0.473	0.491	0.551
Baseline simulation: Fully taxable UI benefits							
Mean	11.268	0.140	0.221	0.317	0.268	0.346	0.294
Standard deviation				0.142	0.138	0.172	0.163
Coefficient of variation				0.448	0.515	0.497	0.554
Experiment 1: Uniform benefit standards: Fully taxable UI benefits							
Mean	15.345	0.190	0.302	0.372	0.316	0.408	0.348
Standard deviation				0.095	0.113	0.114	0.132
Coefficient of variation				0.255	0.358	0.279	0.379
Experiment 2: Minimum benefit standards: Fully taxable UI benefits							
Mean	14.559	0.181	0.286	0.376	0.319	0.412	0.350
Standard deviation				0.124	0.132	0.150	0.154
Coefficient of variation				0.330	0.413	0.364	0.440

<sup>1</sup> Based on the full micro simulation model.

decline when benefits are fully taxable. The largest proportional effects are observed on the net replacement rates and as a consequence, the range covered by the four coefficients of variation is much smaller when UI benefits are fully taxable than for the baseline simulation.

The effects of full taxation of benefits on average replacement rates are large. Persons concerned about the adequacy of program benefits might well oppose full taxation because of the size of these effects. The mean net broad replacement rate when computed on a micro basis is reduced from 0.391 to 0.294. Although individual workers could still experience much higher net income replacement, an average of 0.294 does seem to be quite modest.

The low mean replacement rates with full taxation are due mainly to low weekly benefit maximums and full taxability. The rates could be raised if full taxability is retained while at the same time the benefit structure is also liberalized. Table 7 shows the consequences of such a combined policy applied to simulation experiments 1 and 2.

When benefits under experiment 1 are fully taxable, the net benefits to the workers fall from \$19.726 to \$15.345 billion. The latter amount is 7.6 percent more than gross benefits under the baseline simulation and 12.0 percent more than simulated net benefits of 1980. The macro net broad replacement rate for beneficiaries is 0.302 in this combined program. Fully taxing the benefits of experiment 2 yields net benefits of \$14.559 billion and a macro net broad replacement for beneficiaries of 0.286. Thus, the net benefits of both simulation experiments are more generous than the pretax benefits of the 1980 baseline simulation.

Although the macro replacement rates under the two combined policies are somewhat higher than for the baseline simulation, the means of the micro replacement rates are somewhat lower. The sets of micro means for experiments 1 and 2 are both uniformly lower than their baseline counterparts. This again illustrates that macro and micro replacement rates do not necessarily respond uniformly to policy changes. Only by computing both can one observe these different responses.

The standard deviations of the two combined policy experiments are also uniformly smaller than in the baseline simulation. When experiments 1 and 2 are compared, the standard deviations are smaller in experiment 1, a replication of results from Table 6. The combined policies have particularly large effects on the net-replacement-rate standard deviations of the experiments. For the net broad replacement rate for experiment 1, it is 0.132; both the statutory changes and full taxability contribute to this small value. The baseline value of 0.216 is reduced to 0.193 by the uniform benefit standards alone, to 0.163 by full taxability alone, and to 0.132 by the combined policy. A combined policy has a smaller impact in simulation experi-

ment 2 because the minimum benefit standards have a smaller effect than uniform standards on replacement-rate variation.

Under both combined policies, the net broad replacement rate for the typical worker is about 35 percent of the net income loss due to unemployment. Even after the combined effects of statutory benefit changes and full taxability, however, there remains a large amount of replacement-rate variation at the micro level. The interval required to encompass at least 90 percent of the micro net broad replacement rates is from 0.084 to 0.612. A major finding is that very strong combined policy interventions can reduce the variability of individual replacement-rate experiences, but that much variability will continue to exist.

## Conclusions

The simulation model that underlies the empirical analysis of this report is a versatile instrument for examining State UI policy questions. Its output can be used in analyses of aggregative questions such as the total costs of changes in State UI program statutes. Because its aggregates are built up from micro decision rules, the model can also be used to examine the diversity of worker benefit experiences in the State UI program. This report has focused on interstate and interpersonal replacement-rate variation and has explored only some of the possible lines of research on these topics. At the level of the individual beneficiary, State UI replacement-rate variability is very great. Although this variability can be reduced through public policy actions, especially combined policies that change both State UI statutes and the tax treatment of UI benefits, considerable variability would continue to exist even after major policy changes have been implemented. Thus, simple statements about the average or mean replacement rate in the State UI program will mask the wide diversity of worker experiences under the program.

## Notes

1. William Haber and Merrill Murray, *Unemployment Insurance in the American Economy* (Homewood, Ill., Richard D. Irwin, 1966), p. 26.

2. See Raymond Munts and Irwin Garfinkel, *The Work Disincentive Effects of Unemployment Insurance* (Kalamazoo, Mich., The Upjohn Institute for Employment Research, 1974), chapter 5, for a clear statement of the conflicting goals of State UI.

3. "Insurance objectives" means that the program aims to replace a set proportion, say 50 percent, of the wage loss caused by unemployment. "Welfare objectives" means that the program also considers the work-

ers' presumed economic needs in determining benefit levels. For a discussion of these two objectives, which are present in most social insurance programs, see Robert Myers, *Social Insurance and Allied Government Programs* (Homewood, Ill., Richard D. Irwin, 1965). In it, "individual equity" and "social adequacy" correspond respectively to the terms "insurance objectives" and "welfare objectives" as used here.

4. Very little disagreement arises about horizontal equity being a desirable goal. There is less consensus concerning vertical equity. If proportional earnings-loss replacement were the program's only objective, if there were no labor market distortions arising from benefit payments, and if the marginal utility of income were constant, vertical equity would be satisfied when replacement rates were the same, regardless of the amount of unemployment-induced income loss. See Richard Musgrave, *The Theory of Public Finance* (New York, McGraw-Hill, 1959), chapter 8. Concern for labor supply effects, however, might lead one to advocate lower replacement rates for workers with longer unemployment duration. Even when this declining replacement-rate criterion for vertical equity is used, people experiencing the same level of earnings loss should have the same replacement rate.

5. Mathematica Policy Research, Inc., "A Study of Federal Supplemental Benefits and Special Unemployment Assistance" (Final Report to the U.S. Department of Labor for contract 20-34-76-12, January 1977).

6. Mathematica Policy Research, Inc., "A Study of Federal Supplemental Benefits," pp. 210-28.

7. See, however, Mamaru Ishikawa, *Unemployment Insurance Job Search and Manpower Policy*, Unemployment Insurance Technical Staff Paper 2 (U.S. Department of Labor, 1970) pp. 8-10; and Martin Feldstein, "Unemployment Compensation: Adverse Incentives and Distributional Analysis," *National Tax Journal*, June 1974, pp. 235-37.

8. One important analysis of transfer program overlaps is by James Storey in "Public Income Transfer Programs: The Incidence of Multiple Benefits and the Issues Raised by Their Receipt," *Studies in Public Welfare*, No. 1 (Joint Economic Committee, U.S. Congress, 1972, revised 1974). See also Henry Aaron, *Why Is Welfare So Hard To Reform?* (Washington, D.C., The Brookings Institution, 1973).

9. Some States pay dependents' benefits to unemployed workers. In those States it is possible for  $r_{GN}$  to exceed  $r_{GS}$ . Also  $r_{GN}$  can exceed  $r_{GS}$  for workers who qualify for the minimum weekly benefit.

10. These percentages of short-duration spells are based on unemployment data appearing in *Work Experience of the Population in 1966*, Special Labor Force Report No. 91 (Bureau of Labor Statistics, 1968), table B15, and *Work Experience of the Population in 1975*, Special Labor Force Report No. 192 (Bureau of Labor Statistics, 1976), table C2.

11. The choice of parameter estimates for this example was not entirely arbitrary. Feldstein's "Unemployment" suggests  $k = 0.70$  as the ratio of after-tax to pretax average weekly wages. The estimate of  $f = 0.55$  seems to be implied in David Edgell and Steven Wandner, "Unemployment Insurance: Its Economic Performance," *Monthly Labor Review*, April 1974, p. 35. The estimate of  $r_{GB} = 0.40$  is based on replacement rates appearing in *Handbook of Unemployment Insurance Financial Data 1938-1976* (U.S. Department of Labor, Employment and Training Administration, 1978).

12. The relevant benefit amount is weekly State UI benefits plus other transfers the unemployed worker could receive at the same time.

13. An entitlement effect refers to a worker extending his or her spell in employment in order to become (monetarily) eligible for State UI benefits. See Daniel Hamermesh, "Entitlement Effects, Unemployment Insurance, and Employment Decisions," *Economic Inquiry*, July 1979, pp. 317-22, for a discussion and empirical analysis of State UI entitlement effects.

14. The importance of the nontaxability of benefits is stressed by Feldstein, "Unemployment." Half of benefits are now taxable for persons in high-income tax filing units, but for most recipients the benefits are still tax-free.

15. Martin Feldstein, "The Economics of the New Unemployment," *The Public Interest*, Fall 1973a, pp. 1-42; "The Effect of Unemployment Insurance on Temporary Layoff Unemployment," discussion paper No. 520 (Harvard Institute of Economic Research, November 1976); *Lowering the Permanent Rate of Unemployment*, a study prepared for the Joint Economic Committee, 93rd Congress, First Session, 1973b; "Unemployment Compensation: Adverse Incentives and Distributional Anomalies," *National Tax Journal*, June 1974, pp. 231-44; and "Unemployment Insurance: Time for Reform," *Harvard Business Review*, March-April 1975, pp. 51-61.

16. Feldstein, "Unemployment Insurance: Time," p. 58.

17. Stephen Marston, "The Impact of Unemployment Insurance on Job Search," *Brookings Papers on Economic Activity*, Vol. 1 (Washington, D.C., The Brookings Institution, 1975), p. 33.

18. Stuart Garfinkel and Robert Plotnick, "How Much Does Unemployment Insurance Raise the Unemployment Rate and Lower Earnings and Work Effort?" Discussion Paper No. 378-76 (Institute for Research on Poverty, 1976), p. 22.

19. One way to compare the results of the three investigations is to note their estimates of how much the State UI program raises the full-employment unemployment rate. Feldstein's estimated impact is by far the largest, 21 to 26 percent increase; Garfinkel and

Plotnick, a 4 to 16 percent increase; and Marston, a 5.4 to 9.7 percent increase.

20. Edgell and Wandner, "Unemployment Insurance," pp. 33–40.

21. Edward Gramlich, "The Distributional Effects of Higher Unemployment," *Brookings Papers on Economic Activity*, Vol. 2 (Washington, D.C., The Brookings Institution, 1974), pp. 323–26.

22. Feldstein, "Unemployment Compensation," p. 231.

23. Munts and Garfinkel, *The Work Disincentive*.

24. Mathematica Policy Research, *A Study of Federal Supplemental Benefits*.

25. *Ibid.*, Tables I–1 to V–4, pp. 153–56.

26. A brief description of the model will be given here. For details about the model's structure and its micro simulation division rules, see Wayne Vroman, "A Simulation Model," *Unemployment Compensation: Studies and Research* (Washington, D.C., NCUC, 1980).

27. The Feldstein estimate appears in Table 1 of this report, and in "Unemployment Compensation," p. 236. The Munts-Garfinkel estimate is in table A1 of *The Work Disincentive*, p. 14. Interestingly, the Munts-Garfinkel estimate of 0.56 rises to 0.63 when the effects of fringe benefit losses and money wages growth are excluded from the measure of net income loss. This estimate is almost identical to Feldstein's 0.62.

28. For a description of the TRIM model, see Margaret Sulvetta, "An Analyst's Guide to TRIM—the Transfer Income Model," Paper No. 996–03 (Washington, D.C., The Urban Institute, June 1976).

29. *Household Money Income in 1975*, by Housing Tenure and Residence, for the United States, Regions, Divisions and States (Spring 1976 Survey of Income and Education), Current Population Reports, Series P60, No. 108 (Bureau of the Census, 1968).

30. The specification and estimation of models with recursive structures was pioneered by Herman Wold. See Herman Wold and L. Jureen, *Demand Analysis* (New York, John Wiley, 1953).

31. Aggregate benefit payments based on the individual microrecords are simulated to be \$14.255 billion. The full model estimate of benefits including macro-adjustments is \$15.109 billion, or 5.99 percent higher.

32. Most of the nonbeneficiaries are unemployed workers who do not apply for program benefits. According to the model, the makeup of the 11.985 million is as follows: 8.841 million nonapplicants; 2.044 million applicants with insufficient base-period wage credits; and 1.100 million applicants who were disqualified for the duration of their unemployment.

33. The model estimates 126.750 million weeks are compensated by the regular State UI program and 21.110 million weeks by the EB program.

34. Unpublished program data for the 12 months

from October 1978 to September 1979 show an average weekly wage of \$243.33 for all covered workers. This was inflated by 1.64 percent to yield a calendar year 1979 estimate of \$247.33.

35. The effect of these exclusions was to noticeably reduce the standard deviations of the micro replacement-rate distributions. A typical order of magnitude reduction would be from 4.0 to 0.2.

36. It should be stressed that the statement refers to the means of  $r_{GN}$  and  $r_{NB}$  computed from distributions of micro observations. When the corresponding macro rates are compared as in Table 1, there is a larger disparity, for example,  $R_{GN} = 0.332$  and  $R_{NB} = 0.280$ .

37. Feldstein, "Unemployment Compensation."

38. There are three systems for determining weekly benefits from the worker's base-period earnings: high-quarter earnings, base-period annual earnings, and base-period average weekly wages. The three multiples corresponding to the three methods are respectively 13, 52, and 1. In other words,  $r_{GN}$  will equal  $r_{GS}$  in a high-quarter earnings state if high-quarter earnings are 13 times the worker's average weekly wage in the base period.

39. Making the statutory rate equal to 0.50 was done without changing any State's specific method for determining weekly benefits. Thus, for example, in States that use high-quarter earnings to determine weekly benefits, the high-quarter replacement-rate formula was changed to 0.0385. This is equivalent to a 50 percent statutory replacement rate.

40. Actually there are two factors that cause the mean or  $r_{GN}$  to be less than 0.50 under this uniform-standards experiment. One is the fact that four States (Alaska, New Hampshire, Oregon, and West Virginia) use base-period annual wages to determine the weekly benefit amount. If workers either experience unemployment or are not in the labor force sometime during the base period,  $r_{GN}$  falls below 0.50 since the replacement formula is  $0.096 \times \text{annual wages}$  or  $0.096 \times AWW \times \text{weeks employed}$ . The mean of  $r_{GN}$  for the four States was 0.428 in this experiment, even though the statutory replacement rate was specified to be 0.50. For the other 47 States, the mean of  $r_{GN}$  was 0.486. This mean is less than 0.50 because more workers receive the maximum benefit than receive the minimum benefit. Thus, the main reason why  $r_{GN}$  equals 0.481 in experiment 1 is the effect of the maximum weekly benefit.

41. In fact, some of the newly eligible low-wage workers earned less than \$10 per week and experienced very high replacement rates. To prevent these few (121) observations from unduly influencing standard deviations in experiment 4, they were excluded from the micro distributions.

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# Diverse Treatment of Claimants by States

Saul J. Blaustein

State unemployment insurance (UI) eligibility and benefit provisions vary considerably, and unemployed workers with similar employment experience fare quite differently from State to State in the amount of compensation they receive. The question is, how much do their benefits vary on account of State differences?

The study described in this report attempted to answer this question. It applied benefit provisions from 13 State UI programs in effect as of July 1979 to hypothetical claimants to determine the benefits they would receive. No attempt was made to apply eligibility and disqualification provisions of a nonmonetary nature, such as those relating to job separation, current job search, and availability for work. The study results describe different treatment by States in terms of "monetary" eligibility, weekly benefit amount (WBA), potential duration, potential total entitlement, and total benefits payable during periods of unemployment.

The 13 States were selected to represent the broad range of differences in provisions and also the different regions, industries, and sizes of employing units in the country. The hypothetical claimants vary along four dimensions: employment in the base period (15, 20, 26, 39, and 52 weeks of work); weekly wage (low, average, and high levels);<sup>1</sup> number of dependents (none or two); and duration of unemployment (10, 20, 26, or 39 weeks). A claimant with 20 or more weeks of base-period employment is assumed to have worked 13 weeks in the quarter of highest earnings or high quarter; a 15-week claimant is assumed to have worked 10 weeks in the high quarter. All claimants are assumed to have worked at a constant weekly wage during the base period.

The results show considerable diversity in the State treatment of claimants. States may well have reasons for choosing different policies—emphasizing higher wage replacement rather than longer duration, for example, or favoring workers who work all year. When comparable workers are treated very differently, however, basic equity has been put aside.

## Test Method

UI in the United States is operated on an individual State basis. While Federal laws keep State UI laws

within some bounds, there is little or no Federal control over how States determine "monetary" eligibility for benefits or the weekly amount and duration of benefits. Variation then is hardly surprising. The empirical question is, how much variation is there? The policy question is, how much variation is acceptable? This report is concerned primarily with answering the empirical question.

Advocates of greater uniformity argue that Federal minimum benefit standards should be set, or even a completely national program. They maintain that the economy has grown increasingly national in character, that the causes of unemployment reach across State lines, and that there is no justification for treating unemployed workers so differently. Opponents of this view argue that UI protection should remain a State concern, that the problems of the unemployed are so diverse that they cannot and should not be dealt with by the Federal Government. States are said to be in a better position to know and deal with the unemployed.

Reconciliation of these two viewpoints involves many philosophical and other issues. Presumably, discussion can be enlightened by evaluating the existing diversity in State unemployment compensation (UC) programs.

One can try to compare the provisions themselves directly across States. For example, California requires only \$750 in annual earnings for an unemployed worker to qualify for benefits, regardless of how much employment that represents. Washington requires at least 680 hours of work and \$1,800 in earnings. Ohio requires 20 weeks of work at \$20 per week. States determine eligibility and compute the weekly benefit and duration of payments allowed in many different, often complex ways, making meaningful comparisons very difficult, if not impossible.

To overcome this problem, State provisions were applied to hypothetical claimants of UI benefits who have particular characteristics relevant to the provisions—prior employment and wages, duration of unemployment, and number of dependents. In this way, the potential effects of provisions on workers can be compared.

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To reduce the number of calculations and keep the analysis manageable, the study concentrated on 13 States, chosen to reflect the various provisions in use as well as the variations in State size, industry, and geographic location. At some time, it may be desirable to expand the study to cover all State UI programs.

The provisions examined include the qualifying requirement, the formula for WBA and benefit ceiling, the potential duration formula and maximum, and the waiting period. Only regular UI benefits are considered, not extended or supplemental benefits. Nonmonetary eligibility and disqualification provisions are also not considered.

The major consideration in selecting States was to represent the variety of provisions in force as of July 1979, but the States chosen do not necessarily constitute a perfect sample of State provisions. They do reflect the range of the effects provisions have on claimants. The States in the study are Arkansas, California, Connecticut, Florida, Indiana, Michigan, New Jersey, Oregon, Pennsylvania, Utah, Virginia, West Virginia, and Wisconsin. Together, they account for about 40 percent of all UI covered employment in the nation. Appendix A summarizes their eligibility and benefit provisions as of July 1979.

Some of the test States tend to be liberal in most of their provisions. Pennsylvania, for example, has a relatively mild qualifying requirement, no waiting period before benefits can be drawn, a fairly generous WBA with dependents' allowances and a high ceiling, and one of the most liberal duration provisions. Florida's provisions typify the opposite tendency: they include one of the highest qualifying requirements, a 1-week waiting period, a relatively low WBA ceiling, and one of the most restrictive duration provisions. The test States include two States with the easiest qualifying requirements, California and West Virginia. Four test States provide higher benefits for claimants with dependents. Finally, the inclusion of Oregon and West Virginia allows for study of the effects of their uncommon method of computing the WBA: it is a fraction of annual earnings rather than of weekly or quarterly earnings. All the selected States pay a maximum of 26 weeks or more of regular benefits, but Connecticut, Pennsylvania, and West Virginia provide uniform potential duration, and the others vary it according to base-period employment or earnings.

The hypothetical claimants are assumed to have different periods of base-period employment, weekly wage levels, number of dependents, and duration of unemployment, and these characteristics are set out below.

*Base-period employment.* For this characteristic, five levels were assumed for claimants, as follows:

- 15 weeks of work, with 10 weeks in one quarter, five weeks in other quarters
- 20 weeks of work

- 26 weeks of work
- 39 weeks of work
- 52 weeks of work

For the last four levels, it is assumed that at least one quarter had 13 weeks of work.

The employment and earnings of the claimant in the base period are the basis for determining eligibility and benefit entitlement. The base period refers to a 1-year period (four calendar quarters or 52 weeks) preceding the date of the first claim filed for benefits. States define the base period in different ways, and these differences can affect entitlement. For example, most States define the base period as the first four of the last five completed calendar quarters preceding the first claim, and others define it as the 52 preceding weeks, thereby taking account of the most recent earnings. New Hampshire is unique in specifying a uniform base period that applies to all claimants regardless of when they file their first claim. No attempt is made here to reflect these variations.

*Weekly wage.* With respect to their weekly wage, claimants were tested for the following three broad assumptions.

1. Claimants earn the same weekly wage in all weeks employed.
2. Claimants are assumed to be tested at the same weekly wage in all States, and this test is run at three wage levels: an average wage, using the U.S. average weekly wage (AWW) in covered employment for 1978; a low wage, using  $\frac{1}{2}$  this average; a high wage, using  $1\frac{1}{2}$  times this average.
3. Claimants are tested at the three wage levels in all States: an average wage, using the State's AWW in covered employment for 1978; a low wage, using  $\frac{1}{2}$  this average; a high wage, using  $1\frac{1}{2}$  times this average.

The AWW's for 1978 were estimated by the staff of the National Commission on Unemployment Compensation; their estimates are listed below.

State	1978 AWW
U.S. ....	\$233.30
Arkansas ....	187.09
California ....	243.93
Connecticut ....	243.94
Florida ....	205.83
Indiana ....	243.22
Michigan ....	288.19
New Jersey ....	251.65
Oregon ....	231.50
Pennsylvania ....	236.23
Utah ....	209.46
Virginia ....	207.03
West Virginia ....	242.06
Wisconsin ....	226.68

**Dependents.** Claimants were assumed to have either no dependents or two dependents. These assumptions are relevant only for Connecticut, Indiana, Michigan, and Pennsylvania, where dependents are considered. Of the small percentage of claimants in these States who received dependents' allowances in 1977, most received an allowance for only one or two dependents.

**Duration of unemployment.** Claimants were assumed to have one continuous period of unemployment starting with the first claim filed and lasting for 10 weeks, 20 weeks, 26 weeks, or 39 weeks. The tables showing the results of applying the States' provisions to the test claimants are in Appendix B.

## Test Results: Qualifying Requirements

Claimants with 26 or more weeks of base-period employment qualify for benefits in all States at all wage levels tested. Table 1 summarizes the results for claimants with 15 and 20 weeks of work.

TABLE 1. Results of applying UI qualifying requirements of 13 States to claimants with 15 and 20 weeks of base-period employment at 3 selected weekly wage levels

Type of requirement and State	Weeks of base-period employment and weekly wage level tested					
	15 weeks			20 weeks		
	Low wage	Average wage	High wage	Low wage	Average wage	High wage
<b>Weeks of work in BP</b>						
Fla. (20 weeks)	NQ	NQ	NQ	Q	Q	Q
Mich. (14 weeks)	Q	Q	Q	Q	Q	Q
N.J. (20 weeks)	NQ	Q <sup>1</sup>	Q <sup>1</sup>	Q	Q	Q
Oreg. (18 weeks)	NQ	NQ	NQ	Q	Q	Q
Utah (19 weeks)	NQ	NQ	NQ	Q	Q	Q
Wis. (15 weeks)	Q	Q	Q	Q	Q	Q
<b>BP earnings as multiple of HQ earnings or of WBA<sup>2</sup></b>						
Ark. (30 × WBA)	Q	Q	Q	Q	Q	Q
Conn. (40 × WBA)	NQ	NQ	Q	NQ	NQ	Q
Ind. (1¼ × HQ)	Q	Q	Q	Q	Q	Q
Pa. (32-36 × WBA)	Q	NQ	NQ	Q	NQ	Q
Va. (36 × WBA)	Q	Q	Q	Q	Q	Q
<b>Total BP earnings</b>						
Calif. (\$750)	Q	Q	Q	Q	Q	Q
W. Va. (\$1,150)	Q	Q	Q	Q	Q	Q

BP = base period; HQ = high quarter; WBA = weekly benefit amount; NQ = not qualified; Q = qualified.  
<sup>1</sup> Claimants qualify if they meet a BP total earnings alternative of \$2,200.

<sup>2</sup> Assumes 10 and 13 weeks of work in HQ for claimants with 15 and 20 weeks of base-period employment, respectively.

NOTE: The 3 wage levels relate to the 1978 State average weekly wage in covered employment: low = ½ the State average; high = 1½ times the State average.

Claimants with 20 weeks of work qualify in all 13 States except at certain wage levels in Connecticut and Pennsylvania. In Connecticut, claimants receive benefits replacing slightly over half their weekly wage because of the way the WBA is calculated—in effect, a matter of rounding the amount determined. If the WBA were instead exactly half or less than half the weekly wage earned in the 20 weeks, claimants would meet the requirement of 40 times the WBA. They can meet the requirement under existing provisions with 21 weeks of work. No allowance is made for this arithmetic quirk between the qualifying and WBA formulas. As a result, 20-week claimants fail to qualify in Connecticut at the low-wage level and the AWW level tested; they do qualify at the high-wage level since at that level they receive the 1979 WBA ceiling of \$128, which is less than half the wage. Claimants earning a weekly wage equal to twice the WBA ceiling or more qualify for benefits with 20 weeks of work.

In Pennsylvania, there is a somewhat similar situation with the qualifying requirement and the WBA formula, but with an additional complication. The WBA normally assigned at levels below the maximum yields more than half the weekly wage, too high to enable 20-week claimants at the low and average wage levels to meet the base-period earnings requirement associated with that WBA (they can meet it if they worked 21 weeks). A special "step-down" provision applies in such cases, giving claimants a somewhat lower WBA than normally assigned for their level of high-quarter earnings but enabling them to meet the qualifying requirement. At the low-weekly-wage level, 20-week claimants are allowed enough of a "step-down" to qualify, but a limit to the amount of "step-down" allowed in the WBA prevents them from qualifying at the average-wage level. They qualify at the high-wage level because at that point the WBA is less than half the wage; their total earnings easily meet the WBA multiple required for the maximum WBA.

Claimants who worked 15 weeks in the base period, with 10 weeks in the high quarter, qualify at all weekly wage levels tested in 7 of the 13 States. With a straightforward weeks-of-work requirement, 15-week claimants clearly meet the Michigan and Wisconsin requirements of 14 and 15 weeks of work, respectively, and fail to meet the 18-, 19-, and 20-week requirements in Oregon, Utah, and Florida. New Jersey requires 20 weeks of work but also provides for a flat base-period earnings alternative of \$2,200 regardless of how little claimants worked; at a weekly wage of \$147—well below the 1978 average wage level—or more, 15-week claimants can meet this alternative. At half the average wage, about \$126, they fail to qualify.

The flat base-period earnings requirements in California (\$750) and West Virginia (\$1,150) require weekly wages of only \$50 and \$77, respectively, to qualify with 15 weeks of work; the higher the weekly earn-

ings, the fewer the weeks of work needed to qualify. Claimants with 15 weeks have no trouble qualifying in these States at half the weekly wage or more. Looked at another way, they can meet the minimum earnings requirement in California with about 6 weeks of work at the low-wage level, 3 weeks at the average-wage level, and 2 weeks at the high-wage level. In West Virginia, the corresponding numbers are about 9, 5, and 3 weeks at the tested wage levels.

Among the five States that use a multiple of the high quarter or WBA for the qualifying test, the 15-week claimants qualify at all wage levels in three of them, mostly because only 10 weeks are assumed to fall in the high quarter.<sup>2</sup> The Arkansas requirement of 30 times the WBA can always be met by the 15-week claimants because the WBA is always less than half the weekly wage when based on a 10-week high quarter. In Virginia, where the requirement is 36 times the WBA, 15-week claimants qualify because they have less than 11 weeks of work in the high quarter. The Indiana requirement of  $1\frac{1}{4}$  times high-quarter earnings can be met by the 15-week claimants since they have fewer than 12 weeks of work in that quarter.

In the remaining two States, Connecticut and Pennsylvania, the 15-week claimants can qualify at some weekly wage levels but not at others. The Connecticut requirement of 40 times the WBA is equivalent to slightly more than  $1\frac{1}{2}$  times high-quarter wages. Except at high-weekly-wage levels, claimants with two-thirds or more of their employment concentrated in one quarter and a constant weekly wage fail to meet this test, which is the case with our 15-week claimants with 10 weeks in the high quarter. (With fewer than 10 weeks in the high quarter, they would qualify.) At weekly wage levels exceeding that necessary to qualify for the maximum WBA, however, 15-week claimants can meet the 40-times-WBA requirement with 10 or more weeks of work in the high quarter. Thus, in Connecticut, our 15-week claimants qualify at the high-wage level.

In Pennsylvania, the problem is much the same for the 15-week claimants as described above for 20-week claimants. The "step-down" provision permits 15-week claimants to qualify at the low-weekly-wage level but not at the other wage levels.<sup>3</sup>

### Summing up for test and nontest States

Among the 12 States with a weeks-of-work requirement, the 15-week claimants would fail to qualify at any wage level in six States,<sup>4</sup> would qualify at all wage levels tested in four States, and would qualify at some wage levels in New Jersey and Rhode Island because those States also provide a flat annual earnings alternative. None of the 12 States requires more than 20 weeks of work or less than 14 weeks.

Among the seven States with only a flat annual earn-

ings requirement, our 15-week claimants would qualify at all tested wage levels. The minimum annual earnings required in these States range from \$600 to \$1,200.

Except for Washington, all the States require a base-period earnings multiple of high-quarter earnings or of the WBA. Whether or not 15-week claimants can qualify in these States depends on the multiple, on how concentrated their employment was in the high quarter, on the proportion of the weekly wage the WBA replaces, or on how high their weekly wage was. The uneven effects of the WBA multiple at different wage levels in Connecticut and Pennsylvania can also occur in other States. If the WBA replaces half or not much more than half the wage, 20-week claimants will usually qualify in States that require no more than 40 times the WBA. Most States that use a WBA multiple require less than 40 times; none requires more.

Eleven of the 18 States that require a high-quarter multiple specify that it must be  $1\frac{1}{2}$  times the high-quarter earnings that the 20-week claimants can meet. Only Wyoming specifies a higher multiple (1.6) of high-quarter earnings—our claimant would need 21 weeks of work to qualify. The 15-week claimants can qualify in all high-quarter multiple States except Wyoming, since with 10 weeks in the high quarter they can meet a  $1\frac{1}{2}$  high-quarter test.

One important difference between the effects on eligibility of using the high-quarter multiple and the WBA multiple is not adequately shown by our test States. Unlike the WBA multiple, the high-quarter multiple is unaffected by the level of claimants' weekly wage or WBA. Thus, a high-quarter multiple of  $1\frac{1}{2}$  for claimants with a 13-week high quarter and constant weekly earnings is equivalent to 19.5 weeks of work at *all* wage levels and with any WBA formula. A 40-times-WBA requirement for the same claimants is equivalent to 20 weeks of work, but only if the WBA is exactly half the wage; more than 20 weeks is needed if the WBA exceeds half the wage, and less than 20 weeks if it is less than half, as is the case for most claimants at the WBA ceiling.<sup>5</sup>

Washington's unique requirement of 680 hours of work in the base period translates into 17 weeks at 40 hours per week. The 15-week claimants qualify only if they worked 46 hours weekly or averaged that much with overtime. Claimants with 20 weeks can qualify if they worked 34 hours per week.

### Test Results: Weekly Benefit Amount

Generally speaking, the WBA formulas are designed to replace at least 50 percent of the gross weekly wage up to the maximum WBA. Seven of the 13 test States calculate the WBA on the basis of high-quarter wages (HQW). Assuming 13 weeks in the high quarter, the assumption for test claimants with 20 or more weeks of

base-period employment, a fraction of 1/26 of HQW will replace 50 percent of the weekly wage in that quarter, as is the case in Arkansas, Connecticut, and Utah. Most States using an HQW formula apply a larger fraction than 1/26 (Virginia uses 1/25 and Indiana uses 4.3 percent) to yield more than 50 percent wage replacement for these claimants, or perhaps to make up for less than full employment in the high quarter. California and Pennsylvania use a range of HQW fractions to yield higher replacement rates at lower wage—a *weighted* HQW formula. Of all States using the HQW formula, only California provides for a replacement rate of less than half at wage levels below that required to qualify for the maximum WBA. For claimants at the maximum, of course, the higher the wage, the lower the replacement rate.

Four test States calculate the WBA as a proportion of the AWW earned during the base period. Two test States, Oregon and West Virginia, calculate the WBA as a fraction of total base-period earnings; the concept of a weekly replacement rate is not applied, but the effects on this rate are shown for claimants at different levels of base-period employment.

Four test States take account of dependents in their WBA formulas. Connecticut and Pennsylvania augment the basic WBA with dependents' allowances, thus yielding a higher replacement rate for all claimants with dependents. Indiana and Michigan vary the WBA ceiling for these claimants.

Eight States have flexible WBA ceilings, which are periodically reset at a specified proportion of the State AWW or adjusted in some other way for wage change. Ceilings range from 55 to 79 percent of State average wages.

The remaining States specify a fixed dollar amount for their maximums, which tend to lag behind wage increases until higher ceilings are legislated. In these States, the July 1979 ceilings for the basic WBA with no dependents are from 30 to 46 percent of the 1978 State average wage. Where ceilings are low relative to wages, a larger proportion of claimants cluster at the maximum and receive a benefit of less than half their weekly wage. During 1978, for example, 36 percent of all new eligible claimants qualified for the maximum WBA; on a State-by-State basis, the figure ranged from 8 to 88 percent.<sup>6</sup> The highest percentage tended to be in States with relatively low ceilings. Of the test claimants, those assumed to have a weekly wage equal to 1½ times the average are at the maximum in their respective States and receive less than half their wage.<sup>7</sup>

*WBA's as affected by amount of employment.* The WBA formulas for July 1979 were applied to the hypothetical claimants using two sets of weekly wage levels, one relating to the 1978 national average and the other to the State's average. In the first case, claimants were

assumed to have had the same weekly wage for low, average, and high levels in every State; in the second case, the wage varied by State. (Table B-1 in Appendix B presents the results.)

Except for the annual-earnings-formula States of Oregon and West Virginia, the WBA's of claimants with 20 or more weeks of work at a given wage do not vary by the amount of base-period employment. Because 13 weeks of work were assumed in the high quarter, this result was assured for the States using an HQW formula to calculate the WBA.

In States that use the HQW formula, 15-week claimants receive a substantially lower WBA than claimants who worked 20 or more weeks; this is due to the fact that only 10 weeks of work were assumed in the high quarter for the claimants with 15 weeks. At a weekly wage of ½ the U.S. average wage, the WBA's and wage replacement ratios for the 15- and 20-week claimants compare as follows:

HQW formula State	WBA (replacement ratio)	
	15-week claimant	20-week claimant
Arkansas . . . . .	\$45 (.39)	\$59 (.51)
California . . . . .	46 (.39)	58 (.50)
Indiana (0 and 2 dep.) . . . .	51 (.44)	66 (.57)
Pennsylvania		
0 dep. . . . .	45 (.39)	60 (.52)
2 dep. . . . .	53 (.45)	68 (.58)
Virginia . . . . .	47 (.40)	61 (.52)

In the AWW-formula States, the amount of high-quarter or base-period employment has no effect on the WBA so long as the weekly wage is constant. In the annual-earnings-formula States, of course, the WBA rises with more employment during the base period. Claimants with as much as 39 weeks of base-period employment at a steady wage are unable to receive half their weekly wage. Depending on the wage level, it takes 46 to 48 weeks of work in West Virginia before a 50 percent replacement is paid; the comparable period required in Oregon is 40 weeks.

*WBA's and replacement ratios—variation by weekly wage levels.* Claimants with 26 weeks of base-period employment and the same wage level receive very different WBA's and wage replacement. This variation is the product of different WBA formulas and benefit ceilings. The following table shows this comparison for the 26-week claimants with no dependents at the low-, average-, and high-wage levels.

Wage replacement ratio	Number of test States (total 13)		
	½ U.S. average (1978)	U.S. average wage (1978)	1½ U.S. average (1978)
Less than .30 . . . . .	1	1	4
.30-.39 . . . . .	1	2	7
.40-.49 . . . . .	0	3	2
.50-.54 . . . . .	8	7	0
.55-.59 . . . . .	1	0	0
.60 and over . . . . .	2	0	0

At the low-wage level of \$117, only the two annual-earnings-formula States replace less than half the weekly wage—33 percent in Oregon and 27 percent in West Virginia. The highest replacement rates at this wage level occur in New Jersey (67 percent) and Michigan (60 percent).

At the U.S. average wage level of \$233, the replacement rates are appreciably lower in five States, mostly because benefit ceilings come into play before this wage is reached. Replacement rates do not exceed 53 percent in any of the test States and are as low as 32 percent in Indiana and 28 percent in West Virginia.

At the high-wage level of \$350, benefit ceilings apply in all States, except Oregon and West Virginia, and replacement rates are considerably lower, ranging from 43 to 21 percent.

At the extremes, claimants with the same wage and base-period employment experience can draw a WBA at least twice as large in one State as in another.

A similar distribution of replacement rates among the 13 States was found when the 26-week claimants with no dependents were tested. With weekly wages equal to the averages for the claimants' own State, the distribution was as follows:

Wage replacement ratio	Number of test States (total 13)		
	½ State average (1978)	State average wage (1978)	1½ State average (1978)
Less than .30 . . . . .	1	1	4
.30-.39 . . . . .	1	3	4
.40-.49 . . . . .	1	3	5
.50-.54 . . . . .	7	6	0
.55-.59 . . . . .	1	0	0
.60 and over . . . . .	2	0	0

Figure 1 compares the wage replacement ratios of the State's WBA's for claimants with 26 or more weeks of work at the low-, average-, and high-wage levels, which are related to the 1978 State AWW. Dependents' allowances are included where applicable. The States are arrayed by the size of the ratio at the low-wage level,

except for the two annual-earnings-formula States, which are shown below the others for the 26-, 39-, and 52-week claimants.

At the low-wage level, no State's WBA is restricted by the benefit ceiling. One can see how States vary in their *intended* replacement ratios by the formulas used. By far the lead State is New Jersey, with a two-thirds replacement rate, the highest in the country.<sup>8</sup> Michigan comes next with a 60 percent rate—with or without dependents—and Pennsylvania matches that rate for claimants with two dependents. Excluding the annual-earnings-formula States, only California falls slightly below a 50 percent replacement rate at the low-wage level.

At the average-wage level, the States rank quite differently. The ratios fall below half in four States because benefit ceilings apply at wage levels just below the average.<sup>9</sup>

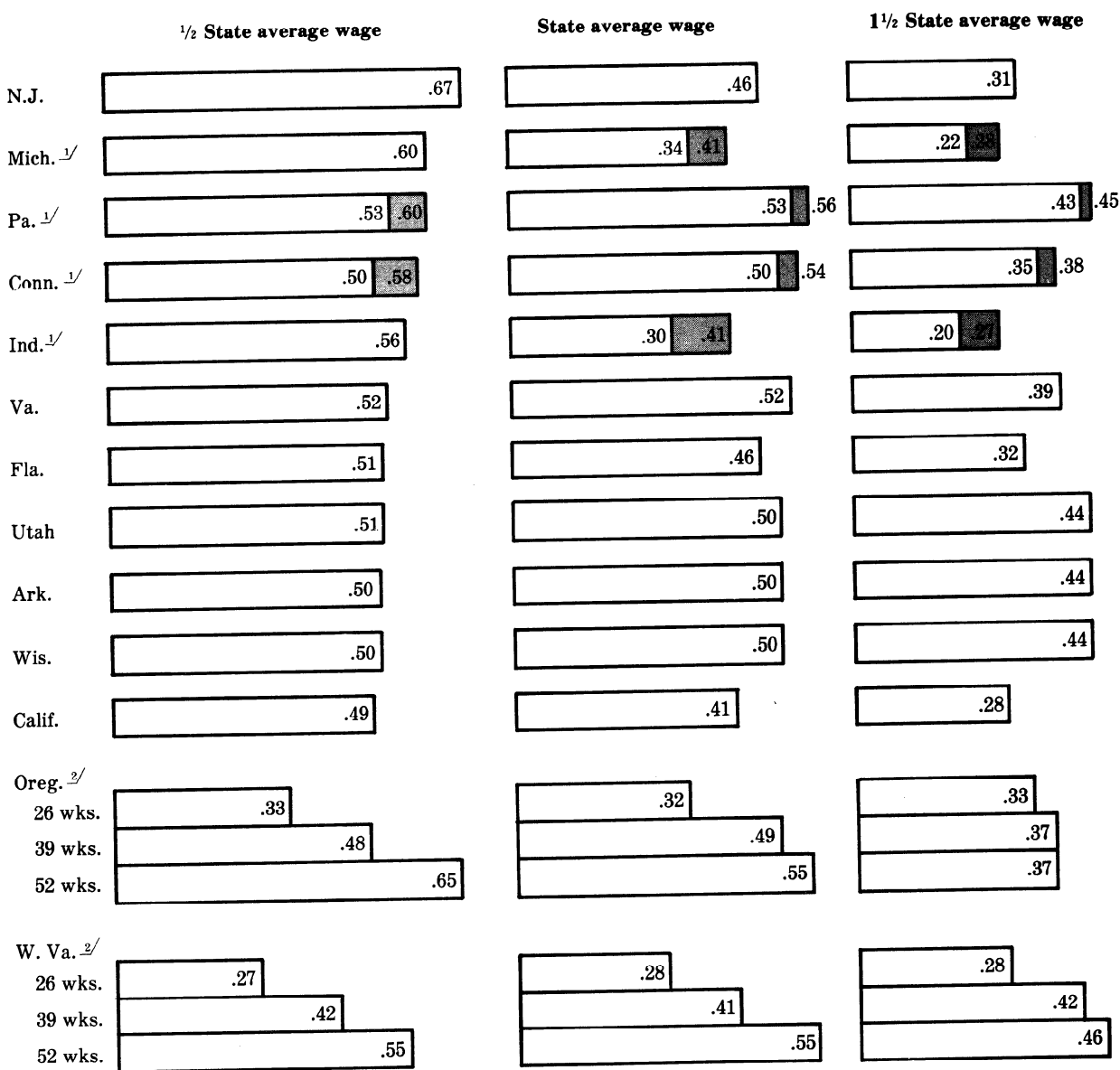
In California the ratio falls below half because the high-quarter fraction used at the average-wage level is smaller than 1/26. Pennsylvania and Connecticut have the highest replacement rates (.56 and .54) when dependents' allowances are added. For claimants with no dependents, the highest rates (.54 and .52) occur in Pennsylvania and Virginia. In Indiana and Michigan, the substantially higher ceilings that apply for claimants with two dependents still leave them with WBA's of only 41 percent of the lost wage.

At the high-wage level, the benefit ceilings keep replacement ratios down in all States. In no State is half the weekly wage replaced. Despite their high replacement rates at wage levels unaffected by ceilings, New Jersey and Michigan rates are among the lowest at the high-wage level. As noted earlier, benefit ceilings range widely in relation to State wage levels, another source of variation in the WBA test results.

A claimant with dependents usually fares better in States that take account of them. In Connecticut and Pennsylvania, where fixed dollar amounts are added to the basic WBA for dependents, the effect on the replacement rates diminishes as the wage rises. Michigan and Indiana, which vary their ceilings by number of dependents, provide no advantage to claimants with dependents at the low-wage level. Their ceilings are so low relative to their wage levels that even claimants with the maximum number of dependents allowed for cannot receive as much as half their wage loss at the average wage in Michigan; in Indiana, they receive barely half.

*Net wage replacement ratios.* Another test of the WBA is for replacement ratios figured on a *net* weekly wage to approximate take-home pay. For this purpose, Federal withholding taxes (i.e., income and social security) applicable during 1979 are subtracted from claimants' weekly wages and the WBA computed as a ratio of this net wage.<sup>10</sup> (These ratios are compared with the ratios for the gross wage in Appendix B, Table B-2.)

FIGURE 1. Weekly wage loss replacement ratios for UI claimants with 26 or more weeks of base-period employment at selected 1978 wage levels (13 States, July 1979 provisions)



<sup>1/</sup> Bar including shaded addition based on weekly benefit payable to claimant with 2 dependents. At 1/2 State average wage, WBA the same for 0 and 2 dependents in Michigan and Indiana.

<sup>2/</sup> Ratios shown for claimants with specified weeks of employment—benefit based on annual earnings.

At the average-wage level, for claimants with 26 or more weeks and no dependents (one tax exemption), the net replacement ratio is about 20 percent higher than the gross replacement ratio. For claimants with two dependents (three tax exemptions), the net ratio is not quite that much higher in States with no dependents' allowances, but it exceeds the gross replacement ratio by more than 20 percent in the States with dependents' allowances. For the claimant with no dependents, the net replacement ratio at the average-wage level reaches

.60 and .65 in six States. In Oregon and West Virginia the ratio reaches this level for claimants with 39 or more weeks of work. In Indiana and Michigan the net ratio is .37 and .42, respectively, for the claimant with no dependents, and .48 and .50 for the claimant with two dependents.

At the low-wage level, excluding the annual-earnings-formula States, the net replacement ratios range from .56 to .77 for the claimant with no dependents and from .54 to .73 for the claimant with two dependents. Again,

excluding the annual-earnings-formula States, the restrictive effect of WBA ceilings on wage replacement ratios shows at the high-wage level, with net ratios ranging from .26 to .56 for the claimant with no dependents and from .34 to .56 with two dependents. Net replacement ratios tend to run about 10 to 15 percent more than gross replacement ratios at the low-wage level and about 25 percent more at the high-wage level.

### Summing up for test and nontest States

The 10 States that use the AWW formula assure claimants at least 50 percent wage replacement at WBA levels below the benefit ceiling, regardless of the amount and distribution of base-period employment during the year. Five of these States replace more than half the wage, but two of them only at lower wage levels. The relationship of benefit ceilings to the AWW vary widely—from 34 to 66⅔ percent; most of them are flexible and set at 50 percent or more of the average wage. Three States have fixed dollar WBA ceilings that are less than half the 1978 State average wage.

Only four States use an annual earnings formula to determine the WBA. In Oregon it takes about 40 weeks of base-period employment at a constant wage, and from about 40 to 47 weeks in West Virginia, before the WBA replaces half the weekly wage. In the other two States, Alaska and New Hampshire, which apply higher fractions to lower levels of annual earnings, it is possible to draw a WBA replacing half the weekly wage at the low level with more limited employment. WBA ceilings are flexible in Oregon and West Virginia—set at 55 and 70 percent, respectively, of the State average wage. The fixed ceiling in Alaska for claimants with no dependents is only 19 percent of its 1978 average wage; in New Hampshire, it is 52 percent.

The remaining 39 States compute the WBA as a fraction of high-quarter wages, with Washington using a fraction of the average of the two highest quarters. Twelve States use 1/26, which produces a WBA that replaces half the weekly wage, assuming 13 weeks in the high quarter. Nineteen States use a larger fraction, ranging as high as Missouri's 1/20, to yield a wage replacement ratio of 65 percent. Eight States use a weighted formula, applying fractions that vary inversely with wages—Pennsylvania's 1/20–1/25 of HQW, for example. Only California, with a weighted formula of 1/24 to 1/31, carries the HQW fraction to less than 1/26, thereby limiting the replacement ratio to less than half at most WBA levels below the maximum. (Two AWW-formula States, Minnesota and New York, also use weighted formulas.)

Six of the 13 States that take account of dependents add allowances to the WBA at all its levels. Two of these States, the District of Columbia and Maryland, do so only at levels below the basic WBA ceiling. Four States add allowances at WBA levels below the ceiling

but also increase the ceiling for claimants with dependents, and one State does not augment WBA's below the ceiling but does raise it for claimants with dependents. In most of these States, the ceilings permit claimants with dependents to receive more than half their wage loss up to levels above the average wage. In several, however, such as Indiana and Michigan, the ceilings are so low relative to their wage levels that even claimants with several dependents are unable to receive half their wage loss at the AWW.<sup>11</sup>

### Test Results: Potential Duration of Regular Benefits

Table B-3 in Appendix B presents the complete results of the potential duration comparisons for our test claimants. The 13 States are grouped by type of provision to facilitate comparison.

#### *Types of provisions.*

- *Uniform duration.* Once eligible, all claimants qualify for the same potential duration (26 weeks in Connecticut, 28 in West Virginia, and 30 in Pennsylvania), regardless of amount of past employment, earnings, or WBA.

- *Fraction of weeks worked.* In four test States, potential duration is in direct proportion to weeks worked in the base period up to the statutory maximum (34 weeks in Wisconsin and 26 weeks in the others). Different levels of weekly earnings or WBA have no effect on the duration allowed. The formulas used range from 1 week of benefits for every 2 weeks worked in Florida to 1.6 weeks for every 2 weeks worked in Wisconsin.

- *Base-period/high-quarter ratio.* Utah's duration provision is based on the ratio between total base-period earnings and high-quarter earnings. The ratio is the same for a given number of weeks worked in the base period, regardless of the level of the weekly wage, provided the wage is the same each week and the high quarter contains 13 weeks of work. These conditions were assumed for our test claimants. The ratio rises as base-period employment increases, and potential duration rises with it, but at an increasing rate. In effect, under the conditions assumed, the duration allowed ranges from 1 week for each 2 weeks worked for the claimant employed 20 weeks, to 1 week for each week worked for the next 16 weeks of work (for a total duration of 26 weeks for 36 weeks of work), and to nearly 1.5 weeks for each of the next 7 weeks of work.

- *Fraction of total earnings.* Five States compute total entitlement (WBA  $\times$  potential duration) as a fraction of total base-period earnings. Potential duration is calculated by dividing the WBA into total entitlement, subject always to the maximum duration. Consequently,

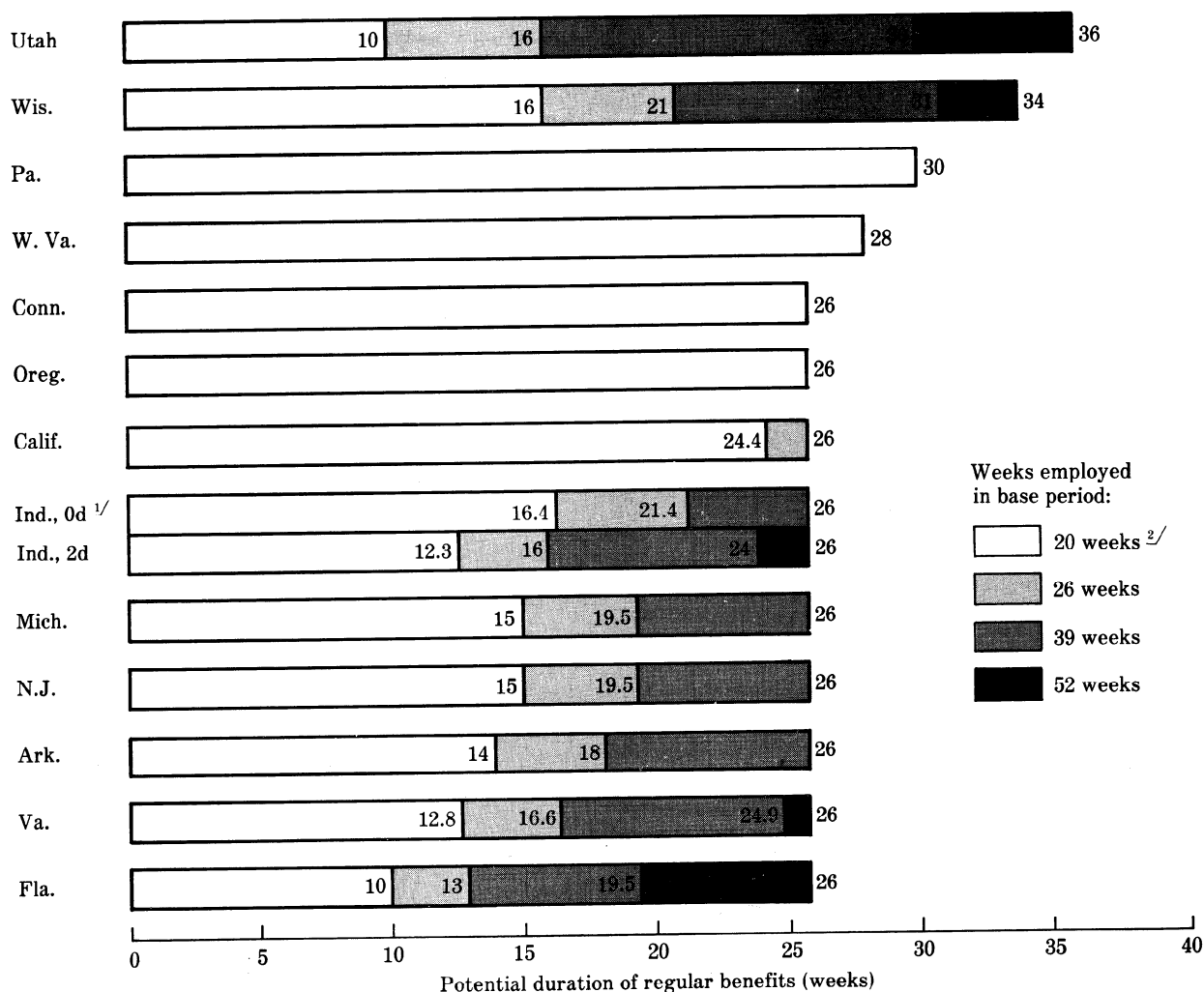
duration can vary as a result of different weekly earnings, total base-period employment, the WBA provisions, and the fraction of total earnings applied.<sup>12</sup> Among the States in this group, the fraction of base-period earnings used in the duration formula is  $\frac{1}{4}$  in Indiana,  $\frac{1}{2}$  in California, and  $\frac{1}{3}$  in the other three States. Arkansas, for example, where the fraction is  $\frac{1}{3}$  and the WBA under its HQW formula works out to be half the claimant's weekly wage, in effect allows potential duration at the rate of 2 weeks of benefits for 3 weeks of work. When the WBA is less than half the wage, as is the case for most claimants at the benefit ceiling, the weeks allowed are better than 2 weeks of benefits for 3 weeks of work. In Oregon, with an annual earnings WBA formula that replaces less than half the weekly wage of most claimants, all claimants qualify

for 26 weeks of benefits, except a small proportion with very low annual earnings who qualify for the minimum WBA.

*Potential duration comparisons.* Figure 2 illustrates some of the duration results. Potential duration is shown for claimants who earned the 1978 State average wage and who worked 20, 26, 39, and 52 weeks in their base periods with 13 weeks in their high quarters. The States are arrayed by the maximum duration and, among States allowing up to 26 weeks, by duration allowed to claimants employed 20 weeks.

The uniform duration States are the most liberal for the 20-week claimants.<sup>13</sup> Oregon also provides the same duration to claimants at the average-wage level. As noted earlier, claimants with 15 weeks of employment

FIGURE 2. Potential duration (in weeks) of regular UI benefits, claimants with 20, 26, 39, and 52 weeks of base-period employment at 1978 State AWW (13 States, July 1979 provisions)



<sup>1/2</sup> Indiana shown for 0 and 2 dependents (d).

<sup>2/2</sup> 21 weeks in Connecticut and Pennsylvania.

do not qualify for any benefits in Oregon or at the average-wage level in Connecticut and Pennsylvania.

The four variable duration States, which determine potential duration directly from weeks worked, provide the 20-week claimant with 10 weeks of benefits in Florida, 15 weeks in Michigan and New Jersey, and 16 weeks in Wisconsin. Claimants with 15 weeks are allowed no benefits in Florida and none in New Jersey unless they earned at least \$2,200 in the base period, in which case they can receive the minimum potential duration of 11.5 weeks. In Michigan, 15-week claimants are allowed a potential duration of 11 weeks; in Wisconsin, 12 weeks. It takes year-round employment in Florida, but only 33 or 34 weeks in the other three States to qualify for the maximum duration of 26 weeks. Wisconsin claimants with 43 weeks of work qualify for the maximum potential duration of 34 weeks.

Utah, which uses the base-period/high-quarter earnings ratio approach, limits the 20-week claimant with 13 high-quarter weeks to no more than 10 weeks of benefits. The 15-week claimant does not qualify. It takes 36 weeks of work to qualify for potential duration of 26 weeks, and 43 weeks of work qualifies for Utah's maximum duration of 36 weeks.

The remaining test States use the formula of a fraction of base-period earnings to determine potential duration. The weekly wage level and the WBA formula and ceiling make a difference. California does best by the claimant with 20 weeks of work at the State average-wage level, allowing 24.4 weeks of benefits.<sup>14</sup> If the \$100 WBA received by the average-wage claimant in California were half the weekly wage instead of only 41 percent of it, potential duration would be 20 weeks. In Arkansas and Virginia, 20-week claimants at the average-wage level qualify for about 14 and 13 weeks, respectively. Higher-wage claimants fare better on duration in States using this formula where the benefit ceiling is relatively low. For example, the claimant with 20 weeks of work at the high-wage level in Arkansas and Virginia qualifies for the maximum WBA and for 18 and 17 weeks, respectively. Although potential duration is higher for the high-wage claimant, the replacement ratio is lower.

In Indiana, where the maximum WBA varies with dependents, there is a similar effect. The average-wage claimant without dependents is subject to a lower benefit ceiling and therefore qualifies for more potential duration than the claimant with two dependents who receives a higher benefit because a higher ceiling applies. The Indiana claimant earning only half the State average qualifies for a benefit replacing 56 percent of that wage. The 20-week claimant at that wage qualifies for only 8.9 weeks of benefits; even working year-round, the low-wage claimant is unable to qualify for as much as the maximum potential duration of 26 weeks. Only claimants whose weekly wage exceeds the amount re-

quired to qualify for the maximum WBA can receive benefits for 26 weeks in Indiana.

In Arkansas, California, Indiana, and Virginia, claimants with 15 weeks and 10 high-quarter weeks qualify for almost as much duration as 20-week claimants at the low- and average-wage levels. Although the Oregon duration formula is also a fraction of base-period earnings, its annual-wage formula for the WBA means that all but the claimants with the lowest annual earnings qualify for the maximum potential duration of 26 weeks.

Table 2 shows the minimum amount of base-period employment needed in the test States at the three wage levels to qualify for 26 weeks of benefits.<sup>15</sup> It also shows the proportion of these States' claimants who did qualify for at least this duration in 1978.

In the uniform duration States of Connecticut and Pennsylvania, the weeks of work required for 26 weeks nearly corresponds with the minimum qualifying requirements—equivalent to about 21 weeks for benefits at the low- and average-wage levels and to about 14 to 17 weeks at the high-wage level. The West Virginia flat qualifying requirement of \$1,150 in base-period earnings can be met with only 5 weeks of work at the average-wage level and 4 weeks at the high-wage level, but few workers with such low annual earnings are likely to have this high a weekly wage.<sup>16</sup>

TABLE 2. Minimum employment required for 26 weeks of regular benefits at selected weekly wage levels in 13 States, July 1979 provisions, and proportion of claimants qualifying in 1978 for 26 or more weeks of regular benefits (States arrayed by percent eligible in 1978 for 26 or more weeks)

State	Weeks of work in base period needed to qualify for 26 weeks of regular 1978 benefits			Percentage of claimants eligible for 26 or more weeks of regular benefits (1981) <sup>1</sup>
	½ average wage	State average wage	1½ average wage	
Pennsylvania <sup>2</sup>	21	21	17	100
Connecticut <sup>2</sup>	21	21	14	100
West Virginia <sup>2</sup>	10	5	4	100
Oregon	18	18	18	92
California	26	22	15	71
New Jersey	34	34	34	65
Michigan	34	34	34	63
Virginia	41	41	31	54
Arkansas	40	40	35	52
Utah	36	36	36	49
Wisconsin	33	33	33	46
Indiana				
0 dep.	<sup>3</sup>	32	21	34
2 dep.	<sup>3</sup>	42	28	34
Florida	52	52	52	27

<sup>1</sup> From *Unemployment Insurance Statistics*, January–March 1979, p. 219.

<sup>2</sup> Uniform duration.

<sup>3</sup> Cannot qualify for 26 weeks at this wage level.

As noted earlier, if the WBA in California and Indiana were equal to half the wage, more weeks of work would be required at the average wage level—26 in California and 52 in Indiana—to qualify for 26 weeks. Compared to the average State wage, claimants at the low-wage level need more weeks of work to qualify for 26 weeks in West Virginia and in California, where their WBA is nearly half the wage. Indiana claimants who earned half the 1978 State AWW cannot qualify for 26 weeks of benefits even with year-round employment; the most they can draw is 23.2 weeks of benefits. In Arkansas and Virginia, the same number of weeks of work are required at the low-wage level as at the average-wage level to qualify for maximum duration since WBA ceilings are high enough to give the same wage replacement rate at both levels. Compared with requirements at the average State wage level, claimants at the high-wage level need fewer weeks of work to qualify for 26 weeks of benefits in seven States—substantially fewer in California, Connecticut, Indiana, and Virginia.

### Summing up for test and nontest States

Of the nine States that provide uniform potential duration of 26 or more weeks, three require flat base-period earnings of only \$1,000 to \$1,200 over two calendar quarters to qualify for that much protection; this requirement means the number of weeks of work varies with the wage level.<sup>17</sup> In Hawaii, the claimant must have 14 weeks of work and base-period earnings equal to 30 times the WBA to qualify for the uniform 26 weeks. Two other uniform duration States require 20 weeks of work and three require about 21 weeks, or less at high-wage levels.

The seven States that use a proportion of weeks worked in the base period to determine duration have different formulas: the most restrictive is Florida's 1 week of benefits for 2 weeks of work, and the most liberal is Ohio's 1 for 1. The maximum is 26 weeks in all these States except Wisconsin, where it is 34.

Four States use the base-period/high-quarter earnings ratio approach—up to 36 weeks in Utah and 26 weeks in the other States. All weight the formula to favor claimants with longer employment.

The remaining 31 States use a formula based on a fraction of the base-period earnings. The higher the fraction, the more duration allowed, although the number of weeks also depends on the WBA and the maximum duration. Most of these States allow total benefit entitlement equal to  $\frac{1}{3}$  of base-period earnings; with a WBA equal to half the weekly wage, this fraction gives 2 weeks of benefits for 3 weeks of work. Six States use a larger fraction. New Mexico's  $\frac{3}{5}$  fraction is the highest and gives 6 weeks of benefits for 5 weeks of work when the WBA is half the wage. Four States use a lower fraction, with the lowest using  $\frac{1}{4}$  of base-period earnings, giving 1 week of benefits for 2 weeks of work at

a WBA level of half the wage. Six of the States using this fraction formula have maximums higher than 26 weeks—up to 39 weeks in Iowa.<sup>18</sup>

### Test Results: Total Potential Entitlement of Regular Benefits

Total entitlement is the maximum amount a person may draw in a benefit year. It is calculated by multiplying the WBA by the duration. All the factors that affect the WBA and duration affect total entitlement. Table B-3 in Appendix B presents the comparisons of total entitlement for all claimants tested.

This comparison is valuable because it can reflect States' policies on the WBA and on duration. In some States a balance may be struck between the two policies. One State may emphasize the adequacy of the WBA through a relatively high wage replacement ratio or benefit ceiling, but the cost may be a more restrictive duration formula. Another State may choose the reverse approach to respond to the needs of claimants with long-term unemployment. Although total entitlement in two States may be similar for certain claimants, the WBA's and durations can be quite different.

It is not easy to interpret the figures on entitlement in Table B-3. One can attempt to understand the reasons why certain States are at or near the high and low ends of the range. For example, applying the same wage in all States, claimants earning the 1978 U.S. average wage with 26 weeks of base-period employment qualify for the lowest total entitlement in Florida and Indiana and the highest in Pennsylvania. The first two States have both low benefit ceilings and restrictive duration provisions, and the reverse is true for Pennsylvania. Florida and Indiana also come out comparatively low on total entitlement for average wage claimants with 39 and 52 weeks of work. Claimants with two dependents in Indiana do better at the 39- and 52-week levels. Pennsylvania's position is still high for claimants with more than 26 weeks of work, but Utah and Wisconsin eventually overtake and surpass Pennsylvania since longer duration is allowed to those who have worked more.

This pattern is more or less the same at the low- and high-wage levels. At the low-wage level, however, it is interesting that New Jersey shows a comparatively high entitlement for claimants who worked 39 weeks or more, simply because it replaces two-thirds of the low weekly wage, a much higher rate than any other test State. For claimants who worked 26 weeks, New Jersey entitlement is not so generous because duration is more restrictive. Thus, New Jersey policies emphasize higher wage replacement, especially for below-average-wage claimants, instead of longer duration.

Except for people who work most or all of the year, West Virginia shows comparatively low or moderate

total entitlement despite its liberal duration provision. This is especially true for low-wage claimants. For year-round high-wage workers, West Virginia provides total entitlement near the top of the range, reflecting greater stress on long-term protection than on the wage replacement ratio.

It is almost impossible to compare States' total entitlement in dollars because of the variation in State wage levels. For example, at the State average-wage level, a claimant with 39 weeks of base-period work and no dependents qualifies for total entitlement of \$2,444 in Arkansas, compared with \$2,522 in Michigan—a 3 percent difference. Michigan's AWW, however, exceeds that of Arkansas by over 50 percent: \$288 versus \$187. At the high-wage level, Arkansas' total entitlement is much greater than Michigan's: \$3,224 compared with \$2,522. In both States, potential duration is 26 weeks. At levels below the maximum WBA, Michigan replaces 60 percent of the weekly wage, and Arkansas replaces 50 percent.

Obviously, the difference in entitlement is explained by the difference in benefit ceilings. The Arkansas ceiling of \$124 permits a 50 percent replacement ratio up to \$248, about  $1\frac{1}{3}$  times the State average wage. But Michigan's ceiling of \$97 covers half a wage loss of \$194, a level only  $\frac{2}{3}$  the State average wage. Comparisons of the total entitlement at the same relative wage levels in their States are thus confounded by variation in general wages and by WBA ceilings for them.

### Test Results: Total Compensation for Unemployment

A better way to view the effects of State provisions is to compare what test claimants receive for a given number of weeks of unemployment. (Table B-5 in Appendix B shows the total amounts claimants draw assuming 10, 20, 26, and 39 weeks of unemployment.) The claimants tested here are those who earned the 1978 State average wage during 26, 39, and 52 weeks of base-period employment. In addition to total benefits, Table B-5 shows them as a ratio of the total wage loss, along with the WBA, the wage replacement ratio, and the number of weeks compensated.

Total compensation is affected by State waiting-week provisions. Four States do not apply a waiting week: Connecticut, Michigan, Pennsylvania, and Wisconsin. New Jersey and Virginia retroactively pay the waiting week if the claimant files for a third and fourth week of benefits, respectively. All other test States do not compensate for the first week claimed.

*Claimants unemployed 10 weeks.* In 7 of the 13 States, claimants unemployed 10 weeks who worked 26 or more weeks in the base period at the AWW are eligible for benefits throughout the unemployment period, with the

exception of the waiting week. The total compensation they receive over the 10 weeks varies widely—from \$603 in West Virginia to \$1,250 in Pennsylvania for the claimant with no dependents—primarily because of different WBA.

The left side of Figure 3 shows the States by total wage replacement ratio for test claimants over the 10 weeks of unemployment. The ratio is the same regardless of how much base-period employment the claimant had beyond 26 weeks, except in Oregon and West Virginia, where the WBA and the ratio rise with increasing employment.

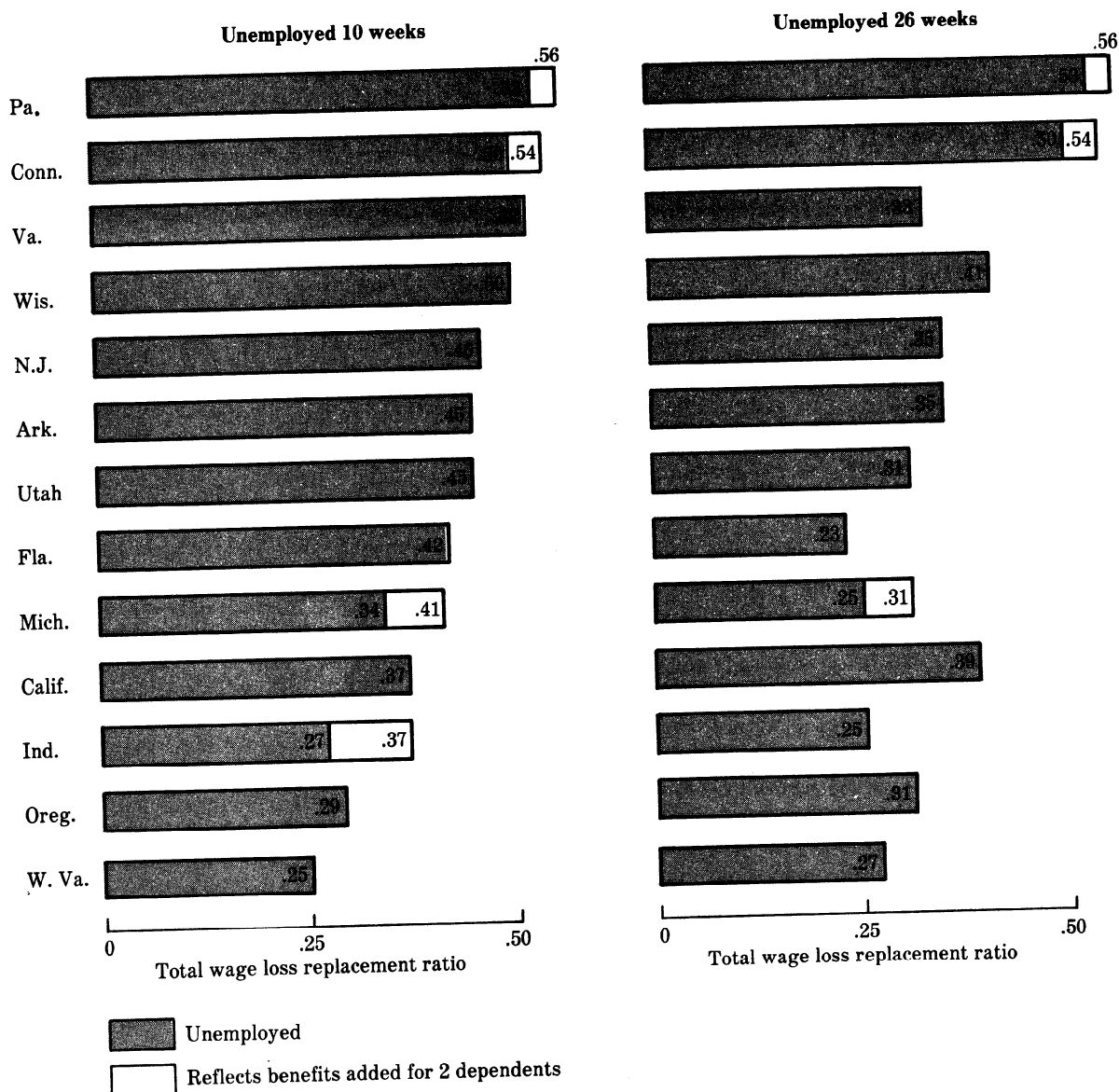
The highest total replacement ratio occurs in Pennsylvania, where it is .53 for the claimant with no dependents; this is more than twice the lowest ratio in West Virginia (.25 for the 26-week claimant) and nearly twice the next lowest ratio in Indiana (.27 for the claimant with no dependents). In the six States where claimants receive benefits for all 10 weeks, the total replacement ratio matches the weekly replacement ratio. With the loss of a waiting week, the total replacement ratio is 10 percent less than the weekly ratio.

At the State low-wage level, the total replacement ratio is higher than at the average-wage level in Florida,

TABLE 3. Total wage-loss replacement ratios for 10 weeks of unemployment, claimants with 26 or more weeks of base-period employment at low, average, and high weekly wage levels (13 States, July 1979 provisions)

State, number of dependents weeks employed	Total wage-loss replacement ratio		
	$\frac{1}{2}$ State average wage	1978 State average wage	$1\frac{1}{2}$ State average wage
Arkansas	.45	.45	.41
California	.44	.37	.26
Connecticut			
0 dep.	.50	.50	.35
2 dep.	.58	.54	.38
Florida	.45	.42	.28
Indiana			
0 dep.	.50	.27	.18
2 dep.	.50	.37	.24
Michigan			
0 dep.	.60	.34	.22
2 dep.	.60	.41	.28
New Jersey	.67	.46	.31
Oregon			
26 weeks	.28	.29	.29
39 weeks	.44	.44	.33
52 weeks	.58	.50	.33
Pennsylvania			
0 dep.	.53	.53	.44
2 dep.	.60	.56	.46
Utah	.46	.45	.39
Virginia	.52	.52	.39
West Virginia			
26 weeks	.25	.25	.25
39 weeks	.39	.37	.37
52 weeks	.50	.49	.46
Wisconsin	.50	.50	.44

FIGURE 3. Proportion of total wage loss compensated by UI benefits during 10 and 26 weeks of unemployment of claimant with 26 weeks of base-period employment at 1978 State average weekly covered wage (13 States, July 1979 provisions)



Indiana, Michigan, and New Jersey; this is true also for the 52-week claimant in Oregon.<sup>19</sup> In these States, the WBA ceilings restrict the replacement ratio at the average-wage level but not at the low-wage level. In California, the total replacement ratio is also higher at the low-wage level, but here it is because of the weighted WBA formula: the higher the wage, the lower the weekly replacement ratio. At the high-wage level, total replacement ratio falls below what it is at the average-wage level in all test States because of WBA ceilings at the high-wage level. (Oregon and West Virginia claimants with 26 weeks are exceptions.) Table 3 compares total replacement ratios for 10 weeks of unemployment

in the test States for claimants who worked 26 weeks or more at the low, average, and high weekly wage levels.

In 10 weeks of unemployment, the wage replacement for claimants with only 20 weeks of work usually matches that of workers employed longer. Oregon and West Virginia are exceptions because the WBA, and therefore the replacement ratio, is lower; so also are Connecticut and Pennsylvania, where at some wage levels the 20-week claimant does not qualify for any benefits. When 15-week claimants qualify, they generally receive a lower WBA and lower total replacement ratio in States using a high-quarter formula for the WBA because they are assumed to have worked only 10

weeks in the high quarter; in West Virginia it is because lower annual earnings yield a lower WBA. If the 15-week claimants earn enough weekly to qualify for the WBA ceiling, their total replacement ratio is the same as for claimants employed longer. Only in Indiana do claimants with 15 and 20 weeks of work at the low-wage level exhaust their potential entitlement during this period of unemployment since they are eligible for somewhat less than 9 weeks of benefits (8.6 and 8.9 times the WBA).

*Claimants unemployed 20 weeks.* As unemployment extends to 20 weeks, limits on duration begin to cut down on wage replacement, especially for claimants with 26 or fewer weeks of base-period employment. At the low- and average-wage levels, 26-week claimants run out of benefits in the 14th week of unemployment in Florida, in the 17th week in Utah and Virginia, and in the 19th week in Arkansas.<sup>20</sup> In Indiana, 26-week claimants at the low-wage level run out of benefits in the 13th week; with two dependents, claimants at the average- and high-wage levels lose benefits in the 17th and 18th week, respectively.

In all test States except Indiana, claimants with 39 or more weeks of work can continue to draw benefits through 20 weeks of unemployment. In Indiana, 39-week claimants at the low-wage level run out during the 17th week if they have no dependents and during the 13th week if they have two. In the latter case the higher WBA uses up the claimant's entitlement more rapidly.

In five States, claimants with only 20 weeks of work have considerably lower total replacement ratios over a 20-week period at all wage levels. In three other States, these ratios are comparatively low at the low- and average-wage levels because benefits run out by the 16th week of unemployment or earlier. By contrast, in the uniform duration States and in California and Oregon, 20-week claimants can draw benefits for 20 weeks of unemployment, or for 19 weeks where waiting weeks apply.

*Claimants unemployed 26 weeks.* Only claimants who worked year round can receive benefits through the 26th week of unemployment in all test States and at all wage levels. (The low-wage level in Indiana is an exception.) The claimant with 26 weeks of work can receive benefits for 26 weeks of unemployment only in the uniform duration States, in Oregon and California, and in Arkansas and Virginia at the high-wage level.

Figure 3 compares total replacement ratios for 26 weeks of unemployment with total replacement ratios for 10 weeks of unemployment. The comparison is made for claimants employed 26 weeks in the base period at the AWW. The States are arrayed by the size of the ratio for the 10-week period of unemployment. The ratio is substantially lower for the longer period in most

States. In 10 States, total replacement ratio is less than .40 over the 26-week period of unemployment; only five States have this low a rate for the 10-week period.

When workers face 26 weeks of unemployment, those with 39 weeks of work fare much better than those with only 26. In Connecticut and Pennsylvania, however, total replacement ratios stay at half or above regardless of the base-period employment, and in California, 26-week claimants can qualify for 26 weeks of benefits. Only in Florida and at some wage levels in Indiana do 39-week claimants exhaust benefits before the 26th week of unemployment.

*Claimants unemployed more than 26 weeks.* Four of the 13 test States pay more than 26 weeks of regular benefits. In the other States, therefore, total replacement ratios decline as unemployment extends beyond 26 weeks. For 26-week claimants unemployed 39 weeks, ratios range from .43 in Pennsylvania (with two dependents) to .17 in Indiana. For those unemployed even longer, for 39 and 52 weeks, the range of ratios among States is narrower—from .43 to about .20, with most States replacing at least 33 percent of total wages.

Only in Pennsylvania and West Virginia can claimants with 20 weeks of work draw benefits for more than 26 weeks; in Pennsylvania they can draw up to 30, and in West Virginia, up to 28 weeks. In West Virginia, however, total replacement is quite low for the 20-week claimant, thanks to the annual earnings formula for the WBA.

Utah and Wisconsin provide up to 36 and 34 weeks of benefits, respectively, but also require substantial base-period employment to enable the claimant to qualify for more than 26 weeks. In Utah, the claimant must have the equivalent of about 38 weeks of work through his base-period/high-quarter earnings pattern to be able to draw 28 weeks, and about 43 weeks of work to draw 36 weeks. In Wisconsin, 35 weeks of work qualify for 28 weeks of benefits, and about 42 weeks of work are needed for 34 weeks of benefits.

#### Summing up for test and nontest States

For short periods of unemployment, the weekly replacement ratio of the WBA is the principal factor determining the total replacement ratio for the entire period of unemployment. The total replacement ratio should in fact equal the weekly replacement ratio when unemployment lasts for 10 or fewer weeks, not counting the waiting week. The waiting week reduces the total replacement ratio from the level of the weekly ratio in 31 States, and its effect on the ratio diminishes as unemployment lengthens.<sup>21,22</sup>

The longer unemployment lasts, the more duration provisions affect the total replacement ratio. In the 42 States with a variable duration formula, claimants with more limited base-period employment tend to exhaust

their benefits sooner. And the more restrictive a State's variable duration formula, the higher the proportion of claimants exhausting benefits at earlier stages of their unemployment. Total replacement ratios decline after benefits are exhausted. Nationally, 15 percent of all claimants in 1978 who exhausted benefits did so before receiving 15 weeks. The proportion was over  $\frac{1}{3}$  in eight States, including four test States—Florida, Indiana, Michigan, and Utah.<sup>23</sup> About 30 percent of all workers who exhausted benefits in 1978 drew less than 20 weeks of benefits. About 55 percent of this group drew 26 or more weeks of regular benefits; the proportion was less than  $\frac{1}{3}$  in 16 States and less than 20 percent in 6.<sup>24</sup>

Still, most claimants do not exhaust regular UI benefits. In 1978, the proportion who did so nationally was about 27 percent; only in five States did it reach more than one-third.<sup>25</sup> For most claimants, therefore, the total wage replacement ratio is unaffected by their potential duration limit; the weekly replacement ratio is the important factor.

## Conclusions

States are quite different in how they treat claimants with similar employment and wage experience. It seems hard to justify the range of total wage replacement for the claimant who worked 26 weeks in the base period at the average wage. Even the 39-week claimant fares comparatively poorly by this measure in such important industrial States as California and Michigan because of a low weekly replacement ratio. In Florida and Indiana, restrictive duration provisions also contribute to this result.

Provisions that rely on formulas using quarterly and annual earnings to determine eligibility, the WBA, and potential duration can result in some odd and probably unintended results, especially for claimants with limited base-period employment. These formulas simply are not reliable equivalents to those that measure employment and weekly wages directly: claimants with the same wage and employment experience can receive different benefits solely because of differences in the mechanics of the formulas. States that use an annual earnings formula for the WBA do not relate benefits to weekly wages as most States do.

The relatively low WBA ceilings of some States help to restrict the proportion of wages compensated. Except for California and the annual-earnings-formula States, benefit formulas are designed to compensate at least half the weekly wage loss at all benefit levels below the maximum. Most compensate more than half. Indeed, a few States are a good deal more generous, or they provide a high ratio for lower-wage claimants or for claimants with dependents. When net wages are examined, it can be seen that the weekly replacement

ratios in some of these States approach or exceed 70 percent at benefit levels below the maximum. Very high net ratios—over 80 percent—are the exception and usually occur in States that pay dependents' allowances and where the claimants have a large number of dependents.

The wide variation in entitlement to regular benefits and duration is especially evident for claimants with less than 39 weeks of base-period employment. States with variable duration formulas weigh past employment differently. In Utah, the formula deliberately gives longer protection to workers with the most employment and shorter protection to those with limited employment.

One question not tested here is how the extended benefits available during high-unemployment periods affect the rationale for variable duration. From 1975 to 1977, Federal supplemental benefits were added to extended benefits. Claimants whose limited base-period employment restricted them to only 10 to 15 weeks of regular benefits could sometimes draw benefits for as long as 25 to 35 weeks. National and State duration policies were clearly in conflict in such cases.

Whether in a general way there should be greater uniformity is still a matter for debate. It is hard, however, to justify those cases where there are dramatic differences in the treatment of similar claimants. Here the argument for uniformity is much stronger.

## Notes

1. Two sets of low-, average-, and high-wage levels were used: one related to the 1978 U.S. AWW in covered employment—the low level was one-half the average wage and the high level was  $1\frac{1}{2}$  times the average; the other set related to the 1978 State average weekly covered wage in the same pattern.

2. This assumption was adopted mainly to reveal the effects of a WBA formula based on a fraction of high-quarter earnings when the number of weeks worked in the high quarter varies; it is probably a more reasonable assumption than 13 high-quarter weeks for the 15-week claimant.

3. Unlike the 20-week claimants, the 15-week claimants at the high-wage level do not qualify in Pennsylvania for the maximum WBA because they have only 10 weeks of work in their high quarter. They can qualify in Connecticut because that State's WBA ceiling is substantially lower than Pennsylvania's. It would take a weekly wage of about 1.6 or more times the average wage in Pennsylvania for 15-week claimants to be assigned the WBA ceiling and thereby meet the qualifying requirement.

4. The 15-week claimants can qualify in New York if they also worked at least 25 weeks during the year preceding the base period.

5. Claimants with very limited base-period employment can meet either requirement with fewer weeks of work than implied by these equivalents if they had few weeks of work in their high quarter. For example, if they worked six weeks in the high quarter, they can meet a test of  $1\frac{1}{2}$  times the high quarter with only three additional weeks of work outside the high quarter and a 40-times-WBA test with four additional weeks, providing that in the latter case the WBA is about one-twenty-fifth or one-twenty-sixth of high-quarter earnings.

6. *Unemployment Insurance Statistics*, January–March 1979, p. 217.

7. In Oregon and West Virginia, these high-wage claimants do not receive the maximum unless they worked at least 30 and 44 weeks, respectively, in their base periods.

8. At very low wage levels, New York provides 67 percent replacement, Nebraska 68, and Puerto Rico even higher rates—these States use weighted formulas.

9. The New Jersey ceiling is set at 50 percent of the State average wage. The ceiling was set in January 1979 for the whole year but is based on the average wage for a period earlier than calendar year 1978 and therefore a lower wage.

10. The Federal income tax deduction assumes the claimant is married, with one tax exemption for the claimant with no dependents and three exemptions for the claimant with two dependents. No attempt is made to apply other deductions (e.g., State or local taxes, pension fund contributions, or union dues) or to add to the gross wage to reflect loss of fringe benefits. Depending on the claimant's annual income and other factors, the income tax subtracted may overstate or understate the prorated weekly share of the actual tax liability for the year.

11. In 1977, of all claimants awarded benefits in States considering dependents, only 37 percent received a higher WBA for this reason. This proportion ranged among these States between 12 and 46 percent. Of those who did receive higher benefits, only 20 percent had more than two dependents. *Unemployment Insurance Statistics*, January–March 1978, pp. 17, 19.

12. Maximum duration is another variable, although all five test States in this category allow up to 26 weeks. Six nontest States that follow this approach have higher duration ceilings, ranging from 28 to 39 weeks.

13. At the AWW in Connecticut and Pennsylvania, the claimant must have 21 weeks of work to qualify.

14. In a State using the formula based on a fraction of base-period earnings, potential duration is expressed as X times the WBA, not always a whole number unless at the maximum duration.

15. In States where potential duration is influenced by a WBA based on an HQW formula, the claimant is assumed to have 13 weeks of work in the high quarter.

16. A recent amendment in that State adds the requirement that wages earned during the year must be spread over at least two quarters, making it less likely to qualify with only five weeks.

17. Two other jurisdictions—Puerto Rico and the Virgin Islands—provide uniform duration of 20 and 26 weeks, respectively.

18. New Mexico recently reduced its maximum from 30 to 26 weeks.

19. The results at the low- and high-wage levels and for less than 26 weeks of work are not provided in Table B-5 of Appendix B.

20. Because the waiting week is not compensated, claimants in Florida draw their last benefits in the 14th week although they are allowed only 13 weeks of benefits. The same situation occurs in Arkansas, California, Florida, Indiana, Oregon, Utah, and West Virginia.

21. Nine other States apply a waiting week but compensate that week if the claimant draws UI for more than a specified number of weeks, ranging from 3 to 12.

22. One other factor not tested here is benefit suspension imposed because of disqualification. Some States deny benefits to a disqualified claimant for a specified number of weeks of unemployment, after which benefits are payable if unemployment continues. In these States, of course, the total replacement ratio is reduced considerably. Most States deny benefits for the duration of the claimant's spell of unemployment.

23. The actual number of weeks drawn by exhaustees in some States may be less than the potential duration originally allowed for claimants who are disqualified and suspended from drawing benefits for a period of time if the State also cancels benefits for that period. Michigan, for example, cancels 13 weeks of benefits for certain disqualifications, which helps account for the high proportion of exhaustees (51 percent) who drew less than 15 weeks in 1978.

24. The 1978 data on weeks drawn by those exhausting benefits is from *Unemployment Insurance Statistics*, January–March 1979, p. 221.

25. *Ibid.*, p. 15.

## Appendix A

TABLE A-1. Significant regular benefit provisions of 13 State unemployment insurance laws (July 1, 1979)

State	Benefit provisions							
	Qualifying wage or employment (number × wba or as indicated) <sup>1</sup>	Waiting week <sup>2</sup>	Computation of wba (fraction of hqw or as indicated) <sup>1,3</sup>	Wba for total unemployment <sup>4</sup>		Proportion of base-period wages	Duration in 52-week period	
				Min.	Max.		Benefit weeks for total unemployment	Min. <sup>5</sup>
Arkansas	30; wages in 2 quarters	1	$\frac{1}{28}$ up to 66⅔% of State aww	15	124	$\frac{1}{3}$	10	26
California	\$750	1	$\frac{1}{24}$ – $\frac{1}{31}$	30	104	$\frac{1}{2}$	12+–15	26
Connecticut	40	0	$\frac{1}{28}$ , up to 60% of State aww + \$5 per dep. up to $\frac{1}{2}$ wba	15–20	128–192	Uniform	26	26
Florida	20 weeks employment at average of \$20 or more	1	$\frac{1}{2}$ claimant's aww	10	95	$\frac{1}{2}$ weeks employment	10	26
Indiana	$1\frac{1}{4} \times$ hqw; not less than \$500; \$300 in last 2 quarters	1	4.3% of high-quarter wage credits	35	74–124	$\frac{1}{4}$	4+	26
Michigan	14 weeks employment at \$25.01 or more	0	60% of claimant's aww up to \$97 with variable max. for claimants with dep. <sup>3</sup>	16–18	97–136	$\frac{3}{4}$ weeks employment	11	26
New Jersey	20 weeks employment at \$30 or more; or \$2,200	1 <sup>2</sup>	66⅔% of claimant's aww up to 50% of State aww	20	117	$\frac{3}{4}$ weeks employment	15	26
Oregon	18 weeks employment at average of \$20 or more; not less than \$700	1	1.25% of bpw up to 55% of State aww	35	127	$\frac{1}{3}$	9	26
Pennsylvania	32+–36; \$120 in HQ and \$440 in BP; at least 20% of bpw outside HQ	0	$\frac{1}{20}$ – $\frac{1}{25}$ up to 66⅔% of State aww + \$5 for 1 dep.; \$3 for 2d	13–18	152–160	Uniform	30	30
Utah	19 weeks employment at \$20 or more; not less than \$700	1	$\frac{1}{26}$ up to 65% of State aww	10	137	Weighted schedule of bpw in relation to hqw	10–22	36
Virginia	36; wages in 2 quarters	1 <sup>2</sup>	$\frac{1}{25}$	38	122	$\frac{1}{3}$	12	26
West Virginia	\$1,150	1	1.6–0.9% of annual wages up to 70% of State aww	18	166	Uniform	28	28
Wisconsin	15 weeks employment; average of \$50.01 or more with 1 employer	0	50% of claimant's aww up to 66⅔% of State aww	28	149	$\frac{8}{10}$ weeks employment	1–13+	34

<sup>1</sup> Weekly benefit amount abbreviated in columns and footnotes as wba; base period, BP; base-period wages, bpw; high quarter, HQ; high-quarter wages, hqw; average weekly wage, aww; benefit year, BY; calendar quarter, CQ; calendar year, CY; dependent, dep.; dependents' allowances, da.; minimum, min.; maximum, max.

<sup>2</sup> Waiting period compensable when benefits are payable for third week following waiting period, N.J.; after benefits paid 4 weeks, Va.

<sup>3</sup> When States use weighted high-quarter, annual-wage, or average-weekly-wage formula, approximate fractions or percentages figured at midpoint of lowest and highest normal wage brackets. When da. provided, fraction applies to basic wba. In States noted variable amounts above max. basic benefits limited to claimants with specified number of dep. and earnings in excess of amounts applicable to max. basic wba. In Ind. da. paid only to claimants with earnings in excess of that needed to qualify for basic wba and who have 1–4 depts. In Mich. claimants may be eligible for augmented amount at all benefit levels but benefit amounts above basic max. available only to claimants in dependency classes whose aww are higher than that required for max. basic benefit.

<sup>4</sup> When 2 amounts given, higher includes da.

<sup>5</sup> For claimants with min. qualifying wages and min. wba. When two amounts shown, range of duration applies to claimants with min. qualifying wages in BP; longer duration applies with min. wba; shorter duration applies with max. possible concentration of wages in HQ; therefore highest wba possible for such BP earnings. Wis. determines entitlement separately for each employer. Lower end of range applies to claimants with only 1 week of work at qualifying wage; upper end to claimants with 15 weeks or more of such wages.

SOURCE: U.S. Department of Labor, Employment and Training Administration, Unemployment Insurance Service.

## Appendix B: Tabulations of Test Results

TABLE B-1. Weekly benefit amounts and wage loss replacement ratios of test claimants in 13 States, July 1979 provisions

A. 1978 U.S. average weekly covered wage (AWW) and related levels							
Weeks worked, <sup>1</sup> State, dependents (dep.)		Weekly benefit amount (WBA)			Replacement ratio (RR) <sup>2</sup>		
		½ AWW (\$116.65)	AWW (\$233.30)	1½ AWW (\$349.95)	½ AWW (\$116.65)	AWW (\$233.30)	1½ AWW (\$349.95)
<u>20 or more weeks worked</u>							
Arkansas		\$59	\$117	\$124*	.51	.50	.35
California		58	97	104*	.50	.42	.30
Connecticut							
20 weeks	0 dep.	N.Q.	N.Q.	128*	N.Q.	N.Q.	.37
	2 dep.	N.Q.	N.Q.	138*	N.Q.	N.Q.	.39
26 or more	0 dep.	59	117	128*	.51	.50	.37
weeks	2 dep.	69	127	138*	.59	.54	.39
Florida		59	95*	95*	.51	.41	.27
Indiana		66	74*	74*	.57	.32	.21
	2 dep.	66	99*	99*	.57	.42	.28
Michigan		70	97*	97*	.60	.42	.28
	2 dep.	70	119*	119*	.60	.51	.34
New Jersey		78	117*	117*	.67	.50	.33
Oregon <sup>3</sup>							
20 weeks		35	58	87	.30	.25	.25
26 weeks		38	76	114	.33	.33	.33
39 weeks		57	114	127*	.49	.49	.39
52 weeks		76	127*	127*	.65	.54	.39
Pennsylvania							
20 weeks	0 dep.	60	N.Q.	152*	.51	N.Q.	.43
	2 dep.	68	N.Q.	160*	.58	N.Q.	.46
26 or more	0 dep.	63	123	152*	.54	.53	.43
weeks	2 dep.	71	131	160*	.61	.56	.46
Utah		59	117	137*	.51	.50	.39
Virginia		61	122*	122*	.52	.52	.35
West Virginia <sup>4</sup>							
20 weeks		25	49	75	.21	.21	.21
26 weeks		32	65	97	.27	.28	.28
39 weeks		48	97	145	.41	.42	.41
52 weeks		65	129	166*	.56	.55	.47
Wisconsin		59	117	149*	.51	.50	.43
<u>15 weeks worked</u>							
Arkansas		\$45	\$90	\$124*	.39	.39	.35
California		46	79	104*	.39	.34	.30
Connecticut							
	0 dep.	N.Q.	N.Q.	128*	N.Q.	N.Q.	.37
	2 dep.	N.Q.	N.Q.	138*	N.Q.	N.Q.	.39
Florida		N.Q.	N.Q.	N.Q.	N.Q.	N.Q.	N.Q.
Indiana		51	74*	74*	.44	.32	.21
	2 dep.	51	99*	99*	.44	.42	.28
Michigan		70	97*	97*	.60	.42	.28
	2 dep.	70	119*	119*	.60	.51	.34
New Jersey		N.Q.	117*	117*	N.Q.	.50	.33
Oregon		N.Q.	N.Q.	N.Q.	N.Q.	N.Q.	N.Q.
Pennsylvania							
	0 dep.	45	N.Q.	N.Q.	.39	N.Q.	N.Q.
	2 dep.	53	N.Q.	N.Q.	.45	N.Q.	N.Q.
Utah		N.Q.	N.Q.	N.Q.	N.Q.	N.Q.	N.Q.
Virginia		47	94	122*	.40	.40	.35
West Virginia		21	37	56	.18	.16	.16
Wisconsin		59	117	149*	.51	.50	.43

B. 1978 State average weekly covered wage (AWW) and related levels

Weeks worked, <sup>1</sup> State, dependents (dep.)		½ State AWW			State AWW			1½ State AWW		
		Weekly wage	WBA	RR <sup>2</sup>	Weekly wage	WBA	RR <sup>2</sup>	Weekly wage	WBA	RR <sup>2</sup>
<u>20 or more weeks worked</u>										
Arkansas		\$ 93.55	\$ 47	.50	\$187.09	\$ 94	.50	\$280.64	\$124*	.44
California		121.97	60	.49	243.93	100	.41	365.90	104*	.28
Connecticut										
20 weeks	0 dep.	121.97	N.Q.	N.Q.	243.94	N.Q.	N.Q.	365.91	128*	.35
	2 dep.	121.97	N.Q.	N.Q.	243.94	N.Q.	N.Q.	365.91	138*	.38
26 or more weeks	0 dep.	121.97	61	.50	243.94	122	.50	365.91	128*	.35
	2 dep.	121.97	71	.58	243.94	132	.54	365.91	138*	.38
Florida		102.92	52	.51	205.83	95*	.46	308.75	95*	.31
Indiana	0 dep.	121.61	68	.56	243.22	74*	.30	364.83	74*	.20
	2 dep.	121.61	68	.56	243.22	99*	.41	364.83	99*	.27
Michigan	0 dep.	144.10	87	.60	288.19	97*	.34	432.29	97*	.22
	2 dep.	144.10	87	.60	288.19	119*	.41	432.29	119*	.28
New Jersey		125.83	84	.67	251.65	117*	.46	377.48	117*	.31
Oregon <sup>3</sup>										
20 weeks		115.75	35	.30	231.50	58	.25	347.25	87	.25
26 weeks		115.75	38	.33	231.50	75	.32	347.25	113	.33
39 weeks		115.75	56	.48	231.50	113	.49	347.25	127*	.37
52 weeks		115.75	75	.65	231.50	127*	.55	347.25	127*	.37
Pennsylvania										
20 weeks	0 dep.	118.12	61	.52	236.23	N.Q.	N.Q.	354.35	152*	.43
	2 dep.	118.12	69	.58	236.23	N.Q.	N.Q.	354.35	160*	.45
26 or more weeks	0 dep.	118.12	63	.53	236.23	125	.53	354.35	152*	.43
	2 dep.	118.12	71	.60	236.23	133	.56	354.35	160*	.45
Utah		104.73	53	.51	209.46	105	.50	314.19	137*	.44
Virginia		103.52	54	.52	207.03	108	.52	310.55	122*	.39
West Virginia <sup>3</sup>										
20 weeks		121.03	26	.21	242.06	51	.21	363.09	78	.21
26 weeks		121.03	33	.27	242.06	67	.28	363.09	100	.28
39 weeks		121.03	51	.42	242.06	100	.41	363.09	151	.42
52 weeks		121.03	67	.55	242.06	133	.55	363.09	156*	.46
Wisconsin		113.34	57	.50	226.68	114	.50	340.02	149*	.44
<u>15 weeks worked</u>										
Arkansas		\$ 93.55	\$ 36	.38	\$187.09	\$ 72	.38	\$280.64	\$108	.38
California		121.97	48	.39	243.93	82	.34	365.90	104*	.28
Connecticut	0 dep.	121.97	N.Q.	N.Q.	243.94	N.Q.	N.Q.	365.91	128*	.35
	2 dep.	121.97	N.Q.	N.Q.	243.94	N.Q.	N.Q.	365.91	138*	.38
Florida		102.92	N.Q.	N.Q.	205.83	N.Q.	N.Q.	308.75	N.Q.	N.Q.
Indiana	0 dep.	121.61	53	.44	243.22	74*	.30	364.83	74*	.20
	2 dep.	121.61	53	.44	243.22	99*	.40	364.83	99*	.27
Michigan	0 dep.	144.10	87	.60	288.19	97*	.34	432.29	97*	.22
	2 dep.	144.10	87	.60	288.19	119*	.41	432.29	119*	.28
New Jersey		125.83	N.Q.	N.Q.	251.65	117*	.46	377.48	117*	.31
Oregon		115.75	N.Q.	N.Q.	231.50	N.Q.	N.Q.	347.25	N.Q.	N.Q.
Pennsylvania	0 dep.	118.12	46	.39	236.23	N.Q.	N.Q.	354.35	N.Q.	N.Q.
	2 dep.	118.12	54	.46	236.23	N.Q.	N.Q.	354.35	N.Q.	N.Q.
Utah		104.73	N.Q.	N.Q.	209.46	N.Q.	N.Q.	314.19	N.Q.	N.Q.
Virginia		103.52	42	.41	207.03	83	.40	310.55	122*	.39
West Virginia		121.03	22	.18	242.06	38	.16	363.09	57	.16
Wisconsin		113.34	57	.50	226.68	114	.50	340.02	149*	.44

N.Q. = not qualified.

\* Maximum WBA.

<sup>1</sup> Weeks worked in base period at specified weekly wage.

<sup>2</sup> RR = WBA ÷ weekly wage.

<sup>3</sup> Annual earnings formula state—WBA varies by weeks worked (amount of earnings) in base period.

TABLE B-2. Weekly wage-loss replacement ratios based on gross and net weekly wages of test claimants in 13 States, July 1979 provisions

A. At ½ 1978 State average covered wage							
Weeks worked, <sup>1</sup> State, dependents (dep.)	Gross weekly wage	Net weekly wage <sup>2</sup>		Weekly benefit amount	Replacement ratio based on		
		1 ex- emption	3 ex- emptions		Gross wage	Net wage 1 ex- emption	3 ex- emptions
26 or more weeks worked							
Arkansas	\$93.55	\$83.72	\$87.82	\$47	.50	.56	.54
California	121.97	105.89	111.69	60	.49	.57	.54
Connecticut	121.97	105.89	—	61	.50	.58	—
Florida	121.97	—	111.69	71	.58	—	.64
Indiana	102.92	91.01	96.61	52	.51	.57	.54
Michigan	121.61	105.56	—	68	.56	.64	—
Michigan	121.61	—	111.36	68	.56	—	.61
Michigan	144.10	123.67	—	87	.60	.70	—
Michigan	144.10	—	129.47	87	.60	—	.67
New Jersey	125.83	108.82	114.62	84	.67	.77	.73
Oregon <sup>3</sup>							
26 weeks				38	.33	.38	.36
39 weeks	115.75	100.85	106.55	56	.48	.56	.53
52 weeks				75	.65	.74	.70
Pennsylvania	118.12	103.08	—	63	.53	.61	—
Pennsylvania	118.12	—	108.88	71	.60	—	.65
Utah	104.73	92.71	98.31	53	.51	.57	.54
Virginia	103.52	91.57	97.17	54	.52	.59	.56
West Virginia <sup>4</sup>							
26 weeks				33	.27	.31	.30
39 weeks	121.03	105.01	110.81	51	.42	.49	.46
52 weeks				67	.55	.64	.60
Wisconsin	113.34	99.29	105.09	57	.50	.57	.54

B. At 1978 State average weekly covered wage							
26 or more weeks worked							
Arkansas	\$187.09	\$156.52	\$163.42	\$94	.50	.60	.58
California	243.93	198.58	205.98	100	.41	.50	.49
Connecticut	243.94	198.59	—	122	.50	.61	—
Connecticut	243.94	—	205.99	132	.54	—	.64
Florida	205.83	170.51	177.41	95*	.46	.56	.54
Indiana	243.22	197.91	—	74*	.30	.37	—
Indiana	243.22	—	205.31	99*	.41	—	.48
Michigan	288.19	231.72	—	97*	.34	.42	—
Michigan	288.19	—	239.82	119*	.41	—	.50
New Jersey	251.65	203.72	211.42	117*	.46	.57	.55
Oregon <sup>3</sup>							
26 weeks				75	.32	.39	.38
39 weeks	231.50	189.01	196.11	113	.49	.60	.58
52 weeks				127*	.55	.67	.65
Pennsylvania	236.23	193.45	—	125	.53	.65	—
Pennsylvania	236.23	—	200.55	133	.56	—	.66
Utah	209.46	173.92	180.82	105	.50	.60	.58
Virginia	207.03	171.64	178.54	108	.52	.63	.60
West Virginia <sup>4</sup>							
26 weeks				67	.28	.34	.33
39 weeks	242.06	196.32	204.22	100	.41	.51	.49
52 weeks				133	.55	.68	.65
Wisconsin	226.68	186.48	193.38	114	.50	.61	.59

C. At 1½ 1978 State average weekly covered wage

Weeks worked, <sup>1</sup> State, dependents (dep.)	Gross weekly wage	Net weekly wage <sup>2</sup>		Weekly benefit amount	Replacement ratio based on		
		1 ex- emption	3 ex- emptions		Gross wage	Net wage	
						1 ex- emption	3 ex- emptions
26 weeks or more weeks worked							
Arkansas	\$280.64	\$224.64	\$232.74	\$124*	.44	.55	.53
California	365.90	286.17	295.37	104*	.28	.36	.35
Connecticut	0 dep. 365.91	286.18	—	128*	.35	.45	—
	2 dep. 365.91	—	295.38	138*	.38	—	.47
Florida	308.75	246.82	254.92	95*	.31	.38	.37
Indiana	0 dep. 364.83	285.17	—	74*	.20	.26	—
	2 dep. 364.83	—	294.37	99*	.27	—	.34
Michigan	0 dep. 432.29	329.79	—	97*	.22	.29	—
	2 dep. 432.29	—	340.59	119*	.28	—	.35
New Jersey	377.48	294.64	303.84	117*	.31	.40	.39
Oregon <sup>3</sup>							
26 weeks	347.25	273.46	282.66	113	.33	.41	.40
39 weeks				127*	.37	.46	.45
52 weeks				127*	.37	.46	.45
Pennsylvania	0 dep. 354.35	277.73	—	152*	.43	.55	—
	2 dep. 354.35	—	286.93	160*	.45	—	.56
Utah	314.19	249.63	257.93	137*	.44	.55	.53
Virginia	310.55	246.21	254.51	122*	.39	.50	.48
West Virginia <sup>3</sup>							
26 weeks	363.09	283.53	292.73	100	.28	.35	.34
39 weeks				151	.42	.53	.52
52 weeks				166*	.46	.59	.57
Wisconsin	340.02	266.68	275.88	149*	.44	.56	.54

\* Maximum WBA.

<sup>1</sup> In base period—assumes 13 weeks of work in high-earnings quarter.

<sup>2</sup> Reflects subtraction of withheld Federal income and social security (FICA) taxes applicable for married workers with no dependents (one tax exemption) and with two dependents (three tax exemptions).

<sup>3</sup> Annual-earnings-formula State—WBA increases with more base-period employment (earnings).

TABLE B-3. Potential regular duration of test claimants in 13 States, July 1979 provisions

Duration provision, State, weekly wage level, dependents (dep.)	Potential regular duration (weeks) <sup>1</sup>				
	15	Base-period employment (weeks worked):			
		20	26	39	52
<b>Uniform duration</b>					
Connecticut	26 <sup>a</sup>	26 <sup>a</sup>	26	26	26
Pennsylvania	30 <sup>a</sup>	30 <sup>a</sup>	30	30	30
West Virginia	28	28	28	28	28
<b>Fraction of weeks worked</b>					
Florida	N.Q.	10	13	19.5	26
Michigan	11.5	15	19.5	26	26
New Jersey	11.25 <sup>a</sup>	15	19.5	26	26
Wisconsin	12	16	21	31	34
<b>Base-period/high-quarter ratio</b>					
Utah	N.Q.	10	16	30	36
<b>Fraction of base-period earnings</b>					
<b>½ U.S. AWW</b>					
Arkansas	13	14	18	26	26
California	19.0	20.1	26	26	26
Indiana 0 dep.	8.6	8.8	11.5	17.2	23.0
2 dep.	8.6	8.8	11.5	17.2	23.0
Oregon	N.Q.	22.2	26	26	26
Virginia	12.4	12.8	16.6	24.9	26
<b>U.S. AWW (1978)</b>					
Arkansas	13	14	18	26	26
California	22.2	24.1	26	26	26
Indiana 0 dep.	11.8	15.8	20.5	26	26
2 dep.	8.8	11.8	15.3	23.0	26
Oregon	N.Q.	26	26	26	26
Virginia	12.4	12.8	16.6	24.9	26
<b>1½ U.S. AWW</b>					
Arkansas	15	19	25	26	26
California	25.2	26	26	26	26
Indiana <sup>a</sup> 0 dep.	16.8	19.2	26	26	26
2 dep.	12.6	14.3	19.6	26	26
Oregon	N.Q.	26	26	26	26
Virginia	14.3	19.1	24.9	26	26
<b>Fraction of base-period earnings</b>					
<b>½ State AWW</b>					
Arkansas	13	14	18	26	26
California	19.1	20.3	26	26	26
Indiana 0 dep.	8.6	9.9	11.6	17.4	23.2
2 dep.	8.6	9.9	11.6	17.4	23.2
Oregon	N.Q.	22.0	26	26	26
Virginia	12.3	12.8	16.6	24.9	26
<b>State AWW (1978)</b>					
Arkansas	13	14	18	26	26
California	22.3	24.4	26	26	26
Indiana 0 dep.	12.3	16.4	21.4	26	26
2 dep.	9.2	12.3	16.0	24.0	26
Oregon	N.Q.	26	26	26	26
Virginia	12.5	12.8	16.6	24.9	26
<b>1½ State AWW</b>					
Arkansas	13	18	23	26	26
California	26	26	26	26	26
Indiana <sup>a</sup> 0 dep.	17.1	19.5	26	26	26
2 dep.	12.7	14.6	20.1	26	26
Oregon	N.Q.	26	26	26	26
Virginia	12.7	17.0	22.1	26	26

N.Q. not qualified.

<sup>1</sup> Or total potential monetary entitlement as a multiple of the weekly benefit amount.<sup>2</sup> N.Q. at some wage levels (see Table B-1).<sup>3</sup> Calculations at this wage level based on provision that limits wage credits counted in a calendar quarter to \$3,225. Claimants with 26 and 39 weeks of base-period employment are assumed to have one and two full quarters of work, respectively, and the remaining 13 weeks of work in two other quarters—8 weeks in one, 5 weeks in the other.

TABLE B-4. Total potential regular benefit entitlement of test claimants in 13 States, July 1979 provisions

<i>A. 1978 U.S. average weekly covered wage (AWW) and related levels</i>					
Total potential entitlement <sup>1</sup>					
Weekly wage level, State, and dependents (dep.)	15	Base-period employment (weeks worked):			
		20	26	39	52
<u>½ U.S. AWW</u>					
Arkansas	\$585	\$826	\$1,062	\$1,534	\$1,534
California	875	1,167	1,508	1,508	1,508
Connecticut 0 dep.	N.Q.	N.Q.	1,534	1,534	1,534
2 dep.	N.Q.	N.Q.	1,794	1,794	1,794
Florida	N.Q.	590	767	1,150.50	1,534
Indiana 0 dep.	437	583	758	1,137	1,516
2 dep.	437	583	758	1,137	1,516
Michigan 0 dep.	805	1,050	1,365	1,820	1,820
2 dep.	805	1,050	1,365	1,820	1,820
New Jersey	N.Q.	1,170	1,521	2,028	2,028
Oregon	N.Q.	777	988	1,482	1,976
Pennsylvania 0 dep.	1,350	1,800	1,890	1,890	1,890
2 dep.	1,590	2,040	2,130	2,130	2,130
Utah	N.Q.	590	944	1,770	2,124
Virginia	584	778	1,011	1,517	1,586
West Virginia	588	700	896	1,344	1,820
Wisconsin	708	944	1,239	1,829	2,006
<u>1978 U.S. AWW</u>					
Arkansas	\$1,170	\$1,638	\$2,106	\$3,042	\$3,042
California	1,750	2,333	2,522	2,522	2,522
Connecticut 0 dep.	N.Q.	N.Q.	3,042	3,042	3,042
2 dep.	N.Q.	N.Q.	3,302	3,302	3,302
Florida	N.Q.	950	1,235	1,852.50	2,470
Indiana 0 dep.	874	1,166	1,516	1,924	1,924
2 dep.	874	1,166	1,516	2,274	2,574
Michigan 0 dep.	1,115.50	1,455	1,891.50	2,522	2,522
2 dep.	1,368.50	1,785	2,320.50	3,094	3,094
New Jersey	1,316.25	1,755	2,281.50	3,042	3,042
Oregon	N.Q.	1,508	1,976	2,964	3,302
Pennsylvania 0 dep.	N.Q.	N.Q.	3,690	3,690	3,690
2 dep.	N.Q.	N.Q.	3,930	3,930	3,930
Utah	N.Q.	1,170	1,872	3,510	4,212
Virginia	1,167	1,556	2,022	3,033	3,172
West Virginia	1,036	1,372	1,820	2,716	3,612
Wisconsin	1,404	1,872	2,457	3,627	3,978
<u>1½ U.S. AWW</u>					
Arkansas	\$1,860	\$2,356	\$3,100	\$3,224	\$3,224
California	2,625	2,704	2,704	2,704	2,704
Connecticut 0 dep.	3,328	3,328	3,328	3,328	3,328
2 dep.	3,588	3,588	3,588	3,588	3,588
Florida	N.Q.	950	1,235	1,852.50	2,470
Indiana 0 dep.	1,243	1,418	1,924	1,924	1,924
2 dep.	1,243	1,418	1,943	2,574	2,574
Michigan 0 dep.	1,115.50	1,455	1,891.50	2,522	2,522
2 dep.	1,368.50	1,785	2,320.50	3,094	3,094
New Jersey	1,316.25	1,755	2,281.50	3,042	3,042
Oregon	N.Q.	2,262	2,964	3,302	3,302
Pennsylvania 0 dep.	N.Q.	4,560	4,560	4,560	4,560
2 dep.	N.Q.	4,800	4,800	4,800	4,800
Utah	N.Q.	1,370	2,192	4,110	4,932
Virginia	1,750	2,333	3,033	3,172	3,172
West Virginia	1,568	2,100	2,716	4,060	4,648
Wisconsin	1,788	2,384	3,129	4,619	5,066

B. 1978 State average weekly covered wage (AWW) and related levels

Weekly wage level, State, and dependents (dep.)	Total potential entitlement <sup>1</sup>				
	15	Base-period employment (weeks worked):			
		20	26	39	52
<u>½ State AWW</u>					
Arkansas	\$468	\$658	\$846	\$1,222	\$1,222
California	915	1,220	1,560	1,560	1,560
Connecticut 0 dep.	N.Q.	N.Q.	1,586	1,586	1,586
2 dep.	N.Q.	N.Q.	1,846	1,846	1,846
Florida	N.Q.	520	676	1,014	1,352
Indiana 0 dep.	456	608	790	1,185	1,580
2 dep.	456	608	790	1,185	1,580
Michigan 0 dep.	1,000.50	1,305	1,696.50	2,262	2,262
2 dep.	1,000.50	1,305	1,696.50	2,262	2,262
New Jersey	N.Q.	1,260	1,638	2,184	2,184
Oregon	N.Q.	771	988	1,456	1,950
Pennsylvania 0 dep.	1,380	1,830	1,890	1,890	1,890
2 dep.	1,620	2,070	2,130	2,130	2,130
Utah	N.Q.	530	848	1,590	1,908
Virginia	518	691	898	1,404	1,404
West Virginia	616	728	924	1,428	1,876
Wisconsin	684	912	1,197	1,767	1,938
<u>1978 State AWW</u>					
Arkansas	\$936	\$1,316	\$1,692	\$2,444	\$2,444
California	1,830	2,440	2,600	2,600	2,600
Connecticut 0 dep.	N.Q.	N.Q.	3,172	3,172	3,172
2 dep.	N.Q.	N.Q.	3,432	3,432	3,432
Florida	N.Q.	950	1,235	1,825.50	2,470
Indiana 0 dep.	912	1,216	1,580	1,924	1,924
2 dep.	912	1,216	1,580	2,371	2,574
Michigan 0 dep.	1,115.50	1,455	1,891.50	2,522	2,522
2 dep.	1,368.50	1,785	2,320.50	3,094	3,094
New Jersey	1,316.25	1,755	2,281.50	3,042	3,042
Oregon	N.Q.	1,508	1,950	2,938	3,302
Pennsylvania 0 dep.	N.Q.	N.Q.	3,750	3,750	3,750
2 dep.	N.Q.	N.Q.	3,990	3,990	3,990
Utah	N.Q.	1,050	1,680	3,150	3,780
Virginia	1,036	1,381	1,795	2,692	2,808
West Virginia	1,064	1,428	1,876	2,800	3,724
Wisconsin	1,368	1,824	2,394	3,534	3,876
<u>1½ State AWW</u>					
Arkansas	\$1,404	\$2,232	\$2,852	\$3,224	\$3,224
California	2,704	2,704	2,704	2,704	2,704
Connecticut 0 dep.	3,328	3,328	3,328	3,328	3,328
2 dep.	3,588	3,588	3,588	3,588	3,588
Florida	N.Q.	950	1,235	1,852.50	2,470
Indiana 0 dep.	1,262	1,444	1,924	1,924	1,924
2 dep.	1,262	1,444	1,991	2,574	2,574
Michigan 0 dep.	1,115.50	1,455	1,891.50	2,522	2,522
2 dep.	1,368.50	1,785	2,320.50	3,094	3,094
New Jersey	1,316.25	1,755	2,281.50	3,042	3,042
Oregon	N.Q.	2,262	2,938	3,302	3,302
Pennsylvania 0 dep.	N.Q.	4,560	4,560	4,560	4,560
2 dep.	N.Q.	4,800	4,800	4,800	4,800
Utah	N.Q.	1,370	2,192	4,110	4,932
Virginia	1,553	2,071	2,692	3,172	3,172
West Virginia	1,596	2,184	2,800	4,228	4,648
Wisconsin	1,788	2,384	3,129	4,619	5,066

N.Q. = not qualified.

<sup>1</sup> Weekly benefit amount × potential regular duration (see Tables B-1 and B-3); for states that compute total entitlement as a fraction of base-period earnings (see Table B-3), the amount shown is total entitlement, so computed, subject to the statutory ceiling on duration.

TABLE B-5. Total regular benefits payable and total wage-loss replacement ratios during unemployment of test claimants in 13 States, July 1979 provisions

A. During 10 weeks of unemployment						
Weeks worked, <sup>1</sup> State, dependents (dep.)	Total wage loss <sup>2</sup>	WBA	Weekly replacement ratio	Weeks compen- sated <sup>3</sup>	Total benefits payable Amount	Ratio to wage loss
Worked 25 or more weeks						
Arkansas	\$1,870.90	\$ 94	.50	9	\$ 846	.45
California	2,439.30	100	.41	9	900	.37
Connecticut 0 dep.	2,439.40	122	.50	10	1,220	.50
2 dep.	2,439.40	132	.54	10	1,320	.54
Florida	2,058.30	95*	.46	9	855	.42
Indiana 0 dep.	2,432.20	74*	.30	9	666	.27
2 dep.	2,432.20	99*	.41	9	891	.37
Michigan 0 dep.	2,881.90	97*	.34	10	970	.34
2 dep.	2,881.90	119*	.41	10	1,190	.41
New Jersey	2,516.50	117*	.46	10	1,170	.46
Oregon <sup>4</sup>						
26 weeks	2,315.00	75	.32	9	675	.29
39 weeks	2,315.00	113	.49	9	1,017	.44
52 weeks	2,315.00	127*	.55	9	1,163	.50
Pennsylvania 0 dep.	2,362.30	125	.53	10	1,250	.53
2 dep.	2,362.30	133	.56	10	1,330	.56
Utah	2,094.60	105	.50	9	945	.45
Virginia	2,070.30	108	.52	10	1,080	.52
West Virginia <sup>4</sup>						
26 weeks	2,420.60	67	.28	9	603	.25
39 weeks	2,420.60	100	.41	9	900	.37
52 weeks	2,420.60	133	.55	9	1,197	.49
Wisconsin	2,266.80	114	.50	10	1,140	.50
B. During 20 weeks of unemployment						
Worked 26 weeks						
Arkansas	\$3,741.80	\$ 94	.50	18†	\$1,692	.45
California	4,878.60	100	.41	19	1,900	.39
Connecticut 0 dep.	4,878.80	122	.50	20	2,440	.50
2 dep.	4,878.80	132	.54	20	2,640	.54
Florida	4,116.60	95*	.46	13†	1,235	.30
Indiana 0 dep.	4,864.40	74*	.30	19	1,406	.29
2 dep.	4,864.40	99*	.41	16.0†	1,584	.33
Michigan 0 dep.	5,763.80	97*	.34	19.5†	1,891.50	.33
2 dep.	5,763.80	119*	.41	19.5†	2,320.50	.40
New Jersey	5,033.00	117*	.46	19.5†	2,281.50	.45
Oregon	4,630.00	75	.32	19	1,425	.31
Pennsylvania 0 dep.	4,724.60	125	.53	20	2,500	.53
2 dep.	4,724.60	133	.56	20	2,660	.56
Utah	4,189.20	105	.50	16†	1,680	.40
Virginia	4,140.60	108	.52	16.5†	1,792.80	.43
West Virginia	4,841.20	67	.28	19	1,273	.26
Wisconsin	4,533.60	114	.50	20	2,280	.50
Worked 39 or more weeks						
Arkansas	\$3,741.80	\$ 94	.50	19	\$1,786	.48
California	4,878.60	100	.41	19	1,900	.39
Connecticut 0 dep.	4,878.80	122	.50	20	2,440	.50
2 dep.	4,878.80	132	.54	20	2,640	.54
Florida	4,116.60	95*	.46	19	1,805	.44
Indiana 0 dep.	4,864.40	74*	.30	19	1,406	.29
2 dep.	4,864.40	99*	.41	19	1,881	.39
Michigan 0 dep.	5,763.80	97*	.34	20	1,940	.34
2 dep.	5,763.80	119*	.41	20	2,380	.41
New Jersey	5,033.00	117*	.46	20	2,340	.46

Weeks worked, <sup>1</sup> State, dependents (dep.)	Total wage loss <sup>2</sup>	WBA	Weekly replacement ratio	Weeks compen- sated <sup>3</sup>	Total benefits payable	
					Amount	Ratio to wage loss
Oregon <sup>4</sup>						
39 weeks	4,630.00	113	.49	19	2,147	.46
52 weeks	4,630.00	127*	.55	19	2,413	.52
Pennsylvania 0 dep.	4,724.60	125	.52	20	2,500	.53
2 dep.	4,724.60	133	.56	20	2,660	.56
Utah	4,189.20	105	.50	19	1,995	.48
Virginia	4,140.60	108	.52	20	2,160	.52
West Virginia <sup>4</sup>						
39 weeks	4,841.20	100	.41	19	1,900	.39
52 weeks	4,841.20	133	.55	19	2,527	.52
Wisconsin	4,533.60	114	.50	20	2,280	.50

*C. During 26 weeks of unemployment*

Worked 26 weeks

Arkansas	\$4,864.34	\$ 94	.50	18†	\$1,692	.35
California	6,342.18	100	.41	25	2,500	.39
Connecticut 0 dep.	6,342.44	122	.50	26†	3,172	.50
2 dep.	6,342.44	132	.54	26†	3,432	.54
Florida	5,351.58	95*	.46	13†	1,235	.23
Indiana 0 dep.	6,323.72	74*	.30	21.4†	1,583.60	.25
2 dep.	6,323.72	99*	.41	16†	1,584	.25
Michigan 0 dep.	7,492.94	97*	.34	19.5†	1,891.50	.25
2 dep.	7,492.94	119*	.41	19.5†	2,320.50	.31
New Jersey	6,542.90	117*	.46	19.5†	2,281.50	.35
Oregon	6,019.00	75	.32	25	1,875	.31
Pennsylvania 0 dep.	6,141.98	125	.53	26	3,250	.53
2 dep.	6,141.98	133	.56	26	3,458	.56
Utah	5,445.96	105	.50	16†	1,680	.31
Virginia	5,382.78	108	.52	16.6†	1,792.80	.33
West Virginia	6,293.56	67	.28	25	1,675	.27
Wisconsin	5,893.68	114	.50	21†	2,394	.41

Worked 39 weeks

Arkansas	\$4,864.34	\$ 94	.50	25	\$2,350	.48
California	6,342.18	100	.41	25	2,500	.39
Connecticut 0 dep.	6,342.44	122	.50	26†	3,172	.50
2 dep.	6,342.44	132	.54	26†	3,432	.54
Florida	5,351.58	95*	.46	19.5†	1,852.50	.35
Indiana 0 dep.	6,323.72	74*	.30	25	1,850	.29
2 dep.	6,323.72	99*	.41	24†	2,376	.38
Michigan 0 dep.	7,492.94	97*	.34	26†	2,522	.34
2 dep.	7,492.94	119*	.41	26†	3,094	.41
New Jersey	6,542.90	117*	.46	26†	3,042	.46
Oregon	6,019.00	113	.49	25	2,825	.47
Pennsylvania 0 dep.	6,141.98	125	.53	26	3,250	.53
2 dep.	6,141.98	133	.56	26	3,458	.56
Utah	5,445.96	105	.50	25	2,730	.50
Virginia	5,382.78	108	.52	24.9†	2,689.20	.50
West Virginia	6,293.56	100	.41	25	2,500	.42
Wisconsin	5,893.68	114	.50	26	2,964	.50

Worked 52 weeks

Arkansas	\$4,864.34	\$ 94	.50	25	\$2,350	.48
California	6,342.18	100	.41	25	2,500	.39
Connecticut 0 dep.	6,342.44	122	.50	26†	3,172	.50
2 dep.	6,342.44	132	.54	26†	3,432	.54
Florida	5,351.58	95*	.46	25	2,375	.44
Indiana 0 dep.	6,323.72	74*	.30	25	1,850	.29
2 dep.	6,323.72	99*	.41	25	2,475	.39
Michigan 0 dep.	7,492.94	97*	.34	26†	2,522	.34
2 dep.	7,492.94	119*	.41	26†	3,094	.41
New Jersey	6,542.90	117*	.46	26†	3,042	.46
Oregon	6,019.00	127*	.55	25	3,175	.53
Pennsylvania 0 dep.	6,141.98	125	.53	26	3,250	.53
2 dep.	6,141.98	133	.56	26	3,458	.56
Utah	5,445.96	105	.50	25	2,625	.48
Virginia	5,382.78	108	.52	26†	2,808	.52
West Virginia	6,293.56	133	.55	25	3,325	.53
Wisconsin	5,893.68	114	.50	26	2,964	.50

*D. During 39 weeks of unemployment*

Weeks worked, <sup>1</sup> State, dependents (dep.)	Total wage loss <sup>2</sup>	WBA	Weekly replacement ratio	Weeks compen- sated <sup>3</sup>	Total benefits payable	
					Amount	Ratio to wage loss
<b>Worked 26 weeks</b>						
Arkansas	\$7,296.51	\$ 94	.50	18†	\$1,692	.23
California	9,513.27	100	.41	26†	2,600	.27
Connecticut 0 dep.	9,513.66	122	.50	26†	3,172	.33
2 dep.	9,513.66	132	.54	26†	3,432	.36
Florida	8,027.37	95*	.46	13†	1,235	.15
Indiana 0 dep.	9,485.58	74*	.30	21.4†	1,583.60	.17
2 dep.	9,485.58	99*	.41	16†	1,584	.17
Michigan 0 dep.	11,239.41	97*	.34	19.5†	1,891.50	.17
2 dep.	11,239.41	119*	.41	19.5†	2,320.50	.21
New Jersey	9,814.35	117*	.46	19.5†	2,281.50	.23
Oregon	9,028.50	75	.32	26†	1,950	.22
Pennsylvania 0 dep.	9,212.97	125	.53	30†	3,750	.41
2 dep.	9,212.97	133	.56	30†	3,990	.43
Utah	8,168.94	105	.50	16†	1,680	.21
Virginia	8,074.17	108	.52	16.6†	1,792.80	.22
West Virginia	9,440.34	67	.28	28†	1,876	.20
Wisconsin	8,840.52	114	.50	21†	2,394	.27
<b>Worked 39 weeks</b>						
Arkansas	\$7,296.51	\$ 94	.50	26†	\$2,444	.33
California	9,513.27	100	.41	26†	2,600	.27
Connecticut 0 dep.	9,513.66	122	.50	26†	3,172	.33
2 dep.	9,513.66	132	.54	26†	3,432	.36
Florida	8,027.37	95*	.46	19.5†	1,852.50	.23
Indiana 0 dep.	9,485.58	74*	.30	26†	1,924	.21
2 dep.	9,485.58	99*	.41	24†	2,376	.25
Michigan 0 dep.	11,239.41	97*	.34	26†	2,522	.22
2 dep.	11,239.41	119*	.41	26†	3,094	.28
New Jersey	9,814.35	117*	.46	26†	3,042	.31
Oregon	9,028.50	113	.49	26†	2,938	.33
Pennsylvania 0 dep.	9,212.97	125	.53	30†	3,750	.41
2 dep.	9,212.97	133	.56	30†	3,990	.43
Utah	8,168.94	105	.50	30†	3,150	.39
Virginia	8,074.17	108	.52	24.9†	2,689.20	.33
West Virginia	9,440.34	100	.41	28†	2,800	.30
Wisconsin	8,840.52	114	.50	31†	3,534	.40
<b>Worked 52 weeks</b>						
Arkansas	\$7,296.51	\$ 94	.50	26†	\$2,444	.33
California	9,513.27	100	.41	26†	2,600	.27
Connecticut 0 dep.	9,513.66	122	.50	26†	3,172	.33
2 dep.	9,513.66	132	.54	26†	3,432	.36
Florida	8,027.37	95*	.46	26†	2,470	.31
Indiana 0 dep.	9,485.58	74*	.30	26†	1,924	.20
2 dep.	9,485.58	99*	.41	26†	2,574	.27
Michigan 0 dep.	11,239.41	97*	.34	26†	2,522	.22
2 dep.	11,239.41	119*	.41	26†	3,094	.28
New Jersey	9,814.35	117*	.46	26†	3,042	.31
Oregon	9,028.50	127*	.55	26†	3,302	.37
Pennsylvania 0 dep.	9,212.97	125	.53	30†	3,750	.41
2 dep.	9,212.27	133	.56	30†	3,990	.43
Utah	8,168.94	105	.50	36†	3,780	.46
Virginia	8,074.17	108	.52	26†	2,808	.35
West Virginia	9,440.34	133	.55	28†	3,724	.39
Wisconsin	8,840.52	114	.50	34†	3,876	.44

\* Maximum WBA.

† Exhausted benefit entitlement.

<sup>1</sup> Weeks employed in base period.

<sup>2</sup> Weeks unemployed × 1978 State average weekly covered wage (see Table B-1).

<sup>3</sup> Waiting week applies and is not compensated in Arkansas, California, Florida, Indiana, Oregon, Utah, and West Virginia.

<sup>4</sup> Annual earnings formula determines WBA, which therefore varies by weeks worked (amount of earnings) in base period.



# Trends in Unemployment Insurance Wage Replacement, 1950 to 1977

Joseph E. Hight

To judge whether there has been improvement over time in the adequacy of unemployment insurance (UI) benefits, and whether there has been an increase in the potential work disincentive effect of these benefits, it is desirable to have data on the weekly benefits of UI beneficiaries and on their weekly earnings when they are employed. While UI program data provide us with a measure of average weekly benefits, adequate data on the earnings of UI beneficiaries are not available for most States over any substantial period of time.<sup>1</sup>

The ratio of average weekly benefits to average weekly wages in covered employment has often been used as a substitute for, and as an indicator of, changes in UI benefit wage replacement rates. For example, Cagan uses these data in concluding that UI benefit increases have had a negligible effect on the unemployment rate. He notes that the "ratio of benefits to average earnings increased only 2.7 percentage points from 1956 to 1973. . . ."<sup>2</sup>

Relying on these same data, Cain noted that "the ratio of the average weekly UI benefits to average weekly wages increased from 0.35 in 1967 to 0.37 in 1974."<sup>3</sup> From this he concluded that the monetary incentive to become and remain unemployed increased relative to the incentive to be employed or be out of the labor force. Cain does point out that the 2 years in his comparison are at very different points in the business cycle and that the labor force composition of UI recipients and of wage earners changed over the period.

This report uses multiple regression analysis to estimate the trend in the ratio of average weekly UI benefits to average weekly wages in covered employment adjusted for changes in the industry composition of UI claimants. In this way, a lower bound estimate of the trend in the ratio of average weekly benefits to average weekly wages of UI recipients should be obtained.

## UI Benefit Formulas and Benefit Wage Replacement

The formula for determining a UI recipient's weekly benefit amount varies among the States. Generally, States set a minimum and maximum amount, and within this range weekly benefits are determined by some fraction of earnings previous to the onset of unemployment. The period used to measure preunemployment earnings and the fraction of earnings used to calculate the weekly benefit vary among States.

All States define a "base" period in which the earnings and/or weeks of work of claimants determine their eligibility for benefits.<sup>4</sup> Most commonly, this period is defined as the first four of the last five calendar quarters completed before a claim for benefits is made. Most States (40 States, as of January 1980) use a benefit formula which computes benefits as a fraction or percent of wages in that quarter of the base period in which wages were highest. As of January 1980 the fraction of "high-quarter wages" used in the benefit formulas ranged from one-twentieth to one twenty-sixth among these States. Some States use a weighted formula, assigning larger fractions to claimants with lower earnings.

The other principal method used for determining the UI weekly benefit amount bases it on wages earned over the entire base period. There are two variants of this method. Some States compute the weekly benefit as a percentage of these "annual wages." Other States compute the weekly benefit as a percentage of the average weekly wage over certain of the weeks during the base period, for example, all weeks in which a claimant had any earnings or in which a claimant had earnings in excess of a given amount.

Define the benefit-wage ratio (BWR) for a group

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of UI recipients as the ratio of their average weekly UI benefits to their average preunemployment weekly wage, that is,

$$BWR = \frac{1}{n} \sum_{i=1}^n B_i \bigg/ \frac{1}{n} \sum_{i=1}^n W_i^u \quad (1)$$

where

$B_i$  = the weekly UI benefit for the  $i$ th UI recipient,

$W_i^u$  = the preunemployment weekly wage for the  $i$ th UI recipient, and

$n$  = the number of UI recipients in the group.

The above definition of BWR glosses over some potentially important problems in the definition of the preunemployment weekly wage ( $W_i$ ). Presumably, this is some average of weekly wages prior to the onset of the unemployment which led to the application for benefits. Since data on the earnings of UI recipients are available only as covered wages, it is not defined further.

Also, it is important to note the distinction between BWR and an average of individual benefit-wage replacement rates as given by

$$ABWR = \frac{1}{n} \sum_{i=1}^n \frac{B_i}{W_i^u} \quad (2)$$

For most questions ABWR is more relevant than BWR, for example as a measure of the average potential work disincentive effect of UI benefits for a group of UI recipients. However, BWR is useful as a measure of the degree to which UI benefits replace the lost wages due to unemployment for a group of recipients. In practice, BWR and ABWR probably are positively correlated, but without data on weekly wages of individual UI recipients we have no knowledge of the degree of this correlation. This study analyzes changes in the ratio BWR, because under the appropriate assumptions the data on wages in covered employment and on UI benefits can be used to make some inferences about this ratio.

For a group of UI recipients, BWR will depend upon (1) the relationship between the wages used in the benefit formulas to calculate benefits (call these formula wages) and  $W_i^u$ , (2) the fraction of wages used to compute the benefit amount, (3) the minimum and maximum benefit amounts, and (4) the distribution of recipients by their formula wages. The first factor in this list can change if States were to change from high-quarter wage formulas to annual wage formulas, for example. Also, since formula wages can refer to periods of a year or more earlier, the rate of wage inflation can also affect this relationship. The effects of the fraction of wages used to compute the benefit amount

and the maximum benefit amount are self-evident. The distribution of recipients by their formula wages affects the number of recipients receiving the minimum and maximum benefits, hence, the numbers receiving lower or higher benefit-wage replacement rates than would be indicated by the formula wage fraction.

Change in UI coverage over time can change BWR. If it leads to changes in the distribution of UI recipients by their preunemployment wages, it can affect the proportion of claimants at the minimum and/or maximum benefit amounts. Over time UI coverage has been extended by including smaller firms and by bringing in previously uncovered industries.

The effect of the minimum benefit amount on BWR depends on State practice. Some States pay an otherwise eligible claimant the minimum benefit if the benefit formula yields an amount less than this minimum. In this case, an increase in the minimum would raise BWR. Other States relate the minimum benefit amount to eligibility for benefits; if the benefit formula applied to a claimant's base-period wages yields an amount less than the minimum benefit, the claimant is not eligible for benefits. In this case, an increase in the minimum weekly benefit decreases BWR because it decreases the proportion of the group of recipients that is below the maximum benefit and, hence, at replacement rates determined by the formula fraction.

With all these various possible effects of changes in UI law, it is difficult to come to a definitive conclusion on the direction of change of BWR for the United States as a whole. This difficulty is compounded by the degree of differences among the States. A perusal of significant provisions of these State laws since 1960 tentatively suggests the following:

- the maximum weekly benefit amounts have been increased, and, because of a continuous increase in the number of States that define the maximum as a fraction of average weekly wages in covered employment in the State, have probably increased relative to average wages of UI recipients (this assumes that the transition defining maximum benefit amount as a fixed dollar amount to defining it as a fraction of average weekly wages involves an initial increase in the ratio of maximum benefit to average wages of recipients, and thereafter prevents this ratio from declining);

- the fractions of formula wages used to derive the weekly benefit amounts have shown some increase;

- minimum benefit amounts have lagged behind increases in wages; and

- base-period earnings requirements have lagged behind increases in wages.<sup>5</sup>

The first two factors above would lead directly to increases in BWR. The third factor, assuming these minimums to be independent of base-period earnings requirements, would lead to decreases in BWR. The

last factor would change the size of the recipient group, increase the proportion receiving a benefit amount equal to or greater than that indicated by the formula fraction, and so increase BWR. On balance one would guess that BWR has increased.

When attempting to isolate possible trends in BWR, one must be conscious of cyclical effects. When unemployment rates are high, a higher proportion of high-wage workers will be among the insured unemployed. This implies a larger proportion of insured unemployed at the maximum benefit and hence, at a lower benefit than that indicated by the formula wage fraction. This would decrease BWR.

### The Relation Between Benefit Wage Replacement and Benefit Wage Ratios

To calculate benefit wage replacement, data on weekly benefits of UI recipients and on their prior weekly wages are necessary. Since no data on weekly wages of UI recipients for all States exist for any substantial span of time, data on average weekly wages paid to workers in UI-covered employment are used as a substitute.

Define the benefit-wage ratio ( $B/W$ ) of UI recipients as the ratio of the average weekly UI benefit received by UI beneficiaries to the average weekly wage in covered employment, that is,

$$\frac{B}{W} = \frac{\frac{1}{n} \sum_{i=1}^n B_i}{\frac{1}{m} \sum_{j=1}^m W_j^c} \quad (3)$$

where

- $B_i$  = the weekly UI benefit for the  $i$ th UI recipient,
- $W_j^c$  = weekly wage for the  $j$ th covered worker,
- $n$  = the number of UI recipients, and
- $m$  = the number of covered workers.

The task is to relate changes in BWR as given in (1) to changes in  $B/W$  as given in (3). It is likely that any given change in weekly benefit amounts, holding wages of UI recipients and wages of covered workers constant, yields a larger change in BWR than in  $B/W$ . This assumes that wages of recipients are lower on average than are wages of all covered workers. This is likely since it is generally the less skilled and less experienced workers who are laid off. This suggests that if, in fact, average benefits have risen over time relative to wages of recipients, this rise would be underestimated by measuring benefits relative to wages of the covered employees.

Specifically assume the average weekly wage of UI recipients at time  $t$ , ( $W_t^u$ ), is equal to a constant pro-

portion of the average weekly wage in covered employment at time  $t$ , ( $W_t^c$ ), that is,

$$W_t^u = k W_t^c \quad (4)$$

where  $k$  is a constant between zero and one. Given (4) and

$$B_t/W_t^c = a_0 + a_1 T \quad (5)$$

where  $B_t$  is the average weekly benefit of UI recipients at time  $t$ ,  $T$  is a measure of time and  $a_0$  and  $a_1$  are constants, then  $a_1$  would be an underestimate of  $b_1$  in (6) by a factor of  $k$ .

$$B_t/W_t^u = b_0 + b_1 T \quad (6)$$

where  $b_0$  and  $b_1$  are constants. Under these circumstances, an estimate of  $a_1$  could be taken as a lower bound estimate for  $b_1$ . In addition, some knowledge of the magnitude of  $k$  could give an indication of the magnitude of the degree of underestimation.

The difficulty with this is that  $k$  is not constant; it will change cyclically and perhaps even exhibit a trend. There may also be one-time shifts in  $k$  at given times.

Cyclically,  $k$  varies because when unemployment is high layoffs reach higher up on the seniority and wage scales, raising  $W_t^u$  relative to  $W_t^c$ . This would cause  $B/W$  to be positively related to unemployment rates, since higher average preunemployment wages imply higher average benefit amounts to be measured against average weekly wages in covered employment. Interestingly enough, BWR should be expected to be negatively correlated with unemployment rates.

A trend in  $k$  could stem from a trend in the mix of the insured unemployed workers relative to covered employment: changes in the skill, experience, or occupational and industrial mix of the insured unemployed, for example. Finally, one-time shifts in  $k$  could come about by legislative changes which extend coverage to new sectors of the job market, perhaps to smaller firms, or to previously uncovered industries or occupations, if these changes were to lead to differential effects on the ratio of UI recipients to covered employment. The movement in average benefits to average wages in covered employment can be analyzed for the period 1950 to 1977 and for 1960 to 1977. Data limitations allow control only for cyclical influences over the former period. For the latter period controls can also be used for changes in the industrial mix of UI recipients relative to the industrial mix of covered employment.

### Analysis of the 1950–1977 Period

Until 1979, UI benefits were nontaxable. In that year they became taxable for those with incomes above a given amount. Since Federal, State, and local payroll

and personal income tax rates have risen since 1950, a given UI benefit amount has increased relative to after-tax earnings. For most purposes the weekly benefit amount is better measured in relation to after tax earnings rather than to gross earnings. For this reason, the author uses both the ratio of average weekly UI benefits to average weekly wages in covered employment and the ratio of average weekly UI benefits to average weekly wages in covered employment adjusted for payroll and income taxes. These are referred to as the gross benefit-wage ratio (GB/W) and the net benefit-wage ratio (NB/W), respectively.

Data on effective payroll and income tax rates over time are limited to estimates for only 6 of the years between 1953 and 1977 (see Appendix). For those years with missing data, interpolations have been made. If these tax rates have exhibited a fairly steady trend over this time, this procedure may not be too damaging to the results. Nevertheless, the trend is analyzed in the gross as well as the net benefit-wage ratio, since the results on the net ratio are tainted by the interpolation of missing data.

Table 1 provides a listing of GB/W, NB/W, and the percentage of insured unemployment (PIU) for the United States from 1950 to 1977. Figure 1 is a graph of GB/W and NB/W for the United States from 1950 to 1977. Careful inspection of the data in Table 1 reveals cyclical movement in the BWR's. For example, between 1964 and 1970, PIU was generally low, and

FIGURE 1. Net and gross wage replacement by year

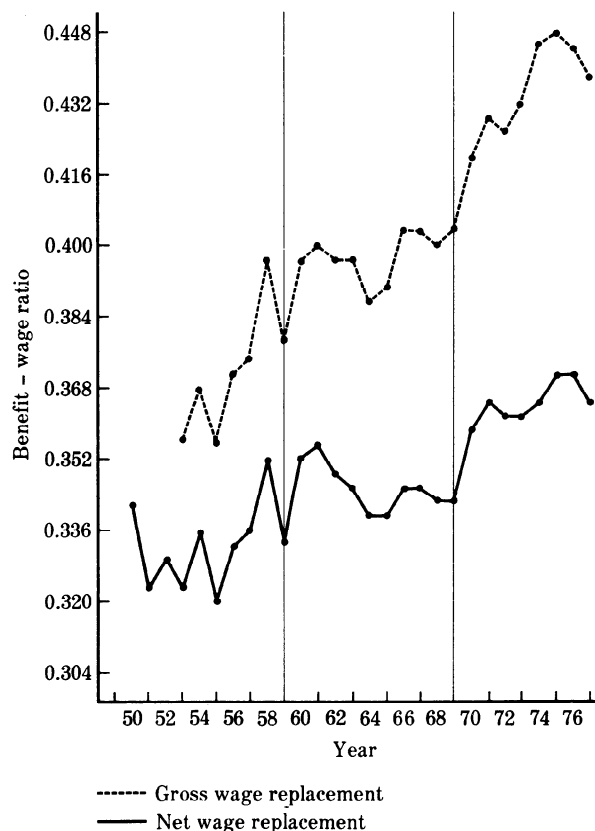


TABLE 1. Gross and net UI benefit wage-replacement ratios, United States, 1950-1977

Year	GB/W	NB/W	PIU
1950	0.344		4.5
1951	0.322		2.7
1952	0.330		2.8
1953	0.323	0.355	2.7
1954	0.335	0.369	5.2
1955	0.321	0.355	3.4
1956	0.333	0.370	3.1
1957	0.335	0.374	3.6
1958	0.353	0.396	6.5
1959	0.334	0.376	4.2
1960	0.352	0.398	4.7
1961	0.354	0.402	5.7
1962	0.349	0.398	4.3
1963	0.346	0.396	4.2
1964	0.338	0.388	3.7
1965	0.338	0.390	2.9
1966	0.347	0.402	2.2
1967	0.347	0.403	2.4
1968	0.343	0.400	2.2
1969	0.344	0.402	2.1
1970	0.357	0.419	3.4
1971	0.365	0.430	4.1
1972	0.361	0.425	3.0
1973	0.361	0.433	2.5
1974	0.365	0.445	3.4
1975	0.371	0.447	6.1
1976	0.371	0.446	4.4
1977	0.364	0.437	3.7

the BWR's were also low. Similarly, PIU decreased from 4.4 to 3.7 between 1976 and 1977. In both of these cases GB/W also decreased.

In Figure 1 both GB/W and NB/W appear to exhibit upward trends over the period as a whole, with NB/W exhibiting the stronger trend, as could be expected, considering the upward trend in tax rates. Separating the entire span of time into three distinct periods—1950 to 1959, 1959 to 1969, and 1969 to 1977—further illustrates the effect of unemployment rates on these ratios. From Figure 1, we can see that prior to 1959 GB/W exhibited a small positive trend (especially if the 2 high unemployment years, 1950 and 1958, are ignored), between 1959 and 1969 this ratio exhibits no positive trend at all, while after 1969 a distinct positive trend again emerges.

However, recalling that the years 1964 through 1969 were years of particularly low unemployment rates changes this picture, since these low unemployment rates were a primary cause of the low ratio of weekly benefits to average weekly wages in covered employment during 1964 to 1969. If the insured unemployment rate had been closer to its long-run average of 3.6 percent during these years, a positive trend in the

TABLE 2. Regression results: ratio of UI benefits to gross and net wages in covered employment, United States 1950–1977 (*t*-statistics in parentheses)

	Regression coefficients			
	GB/W		NB/W	
	(1) Without TIME2	(2) With TIME2	(3) Without TIME2	(4) With TIME2
TIME	.00153 (11.5)	.00809 (1.49)	.00365 (21.6)	.00376 (4.22)
PIU	.00492 (5.31)	.00486 (5.33)	.00577 (5.61)	.00560 (5.40)
TIME2		.00002 (1.37)		— .00000 (0.12)
Intercept	.306 (72.9)	.310 (62.2)	.322 (62.1)	.321 (38.7)
R <sup>2</sup>	.859	.869	.955	.955
F Statistic	76.1	53.1	235	150
DW	1.52	1.63	1.77	1.77
Degrees of freedom	25	24	22	21

GB/W would have been clear for the period from 1959 to 1969 as well as for the other two periods.

In columns (1) and (3) of Table 2 we present the results obtained by regressing GB/W and NB/W on PIU and on time (TIME), where time is measured as one in 1950 and increases annually by one through 1977. Columns (2) and (4) of Table 2 show the results when time squared (TIME2) is added. The regressions including the time squared term were used to test whether the trend in GB/W and NB/W has been decreasing over the period. This would have been indicated by a negative coefficient for TIME2. However, the estimated coefficients for TIME2 are not significantly different from zero.

The regression coefficient for TIME2 shown in column (1) of Table 2 indicates that after the cyclical effect represented by PIU is removed, the ratio of average weekly benefits to average weekly wages in covered employment increased at the rate of 0.2 percentage points per year, or 4 percentage points over a 20-year period. From column (3) of Table 2 we see that the corresponding estimate for the ratio of average weekly benefits to average weekly wages adjusted for taxes was more than double that for the gross ratio. This, of course, reflects the pervasive effect of rising taxes. As expected, PIU is positively related to GB/W and NB/W, as indicated by the positive signs on the regression coefficients of PIU.

If it were clear that at a given insured unemployment rate the ratio of the average weekly wage of UI recipients to average weekly wages in covered employment—*k* in equation (4)—had remained stable over time, the regression estimates in Table 2 could be used to conclude that the ratio of average weekly benefits of

UI recipients to their average weekly wages before and after taxes respectively increased by at least 0.15 and 0.37 percentage points per year. The actual rates of increase would be larger, if, as is very likely the case, the ratio of average wages of UI recipients to average wages in covered employment were less than one. For example, if this ratio were 0.5, then the actual rates of increase would be double, namely 0.30 and 0.74 percentage points per year. While PIU has probably captured the cyclical variation in the ratio of the average weekly wage of UI recipients to average weekly wages in covered employment, a trend in this ratio still seems likely. To account for this possibility, data for the period from 1960 to 1977 are analyzed, since data on the industry mix of the insured unemployed and covered employment are available for this period.

### Analysis of 1960–1977 Period

Data are available on the industrial composition of UI claimants for the years beginning with 1960. The category of UI claimants is broader than that of UI recipients, however, and should not be confused with it; some claimants are found to be ineligible, and in some States an eligible claimant receives no benefits for the first week of a benefit year, hence is not immediately a “recipient.” From 1970 to 1977, weeks of benefits paid averaged 84 percent of weeks of benefits claimed.<sup>6</sup>

While data on the age, sex, and occupational composition of UI claimants are available, data on the characteristics of covered employees are limited to industrial composition. This is unfortunate for the purposes of this report, because data are needed on the composition of the recipients of UI relative to the composition of covered employees. For example, it is desirable to know not just the percentage of UI recipients who are female, but the ratio of the percentage of UI recipients who are female to the percentage of covered employees who are female. As a result, we can only control for industrial composition. However, to the extent that industrial composition is correlated with occupational, age, and sex composition these latter characteristics will be indirectly controlled for as well.<sup>7</sup>

Data are by eight broad two-digit SIC level industrial categories. Since these data are available for only 18 years, the degrees of freedom are minimized by controlling for industrial composition using a weighted average wage. This is calculated by weighting the average wage in covered employment in each industry by the proportion of UI claimants in that industry. This is an alternative to using industrial composition as an independent variable.

Specifically, as a substitute for the average weekly wage in covered employment, a weighted average wage is calculated by

$$WW = \sum_{i=1}^8 W_i^c P_i \quad (7)$$

where  $WW$  is the weighted average weekly wage,  $W_i^c$  is the average weekly wage in covered employment in the  $i$ th industry, and  $P_i$  is the proportion of UI claimants from the  $i$ th industry.

The ratio of average weekly benefits to  $WW$  and to  $WW$  adjusted for payroll and income taxes produces the new variables,  $GB/WW$  and  $NB/WW$ , respectively. The weighted average weekly wage,  $WW$ , should exhibit a more stable relationship to the average weekly wages of UI recipients ( $W_t^u$ ) than the average weekly wage in covered employment ( $W_t^c$ ) does;  $WW$  accounts for changes in  $W_t^u/W_t^c$  that stem from changes in the industrial mix of UI recipients relative to the mix for covered employment.

In Tables 3 and 4 are regression results for the 1960–1977 period. Time is measured by  $T$  which takes on the value of one in 1960 and increases annually by one through 1977. In Table 3 the results are presented using the ratio of average weekly UI benefits ( $B_t$ ) to average weekly wages in covered employment as the dependent variable. In Table 4, the dependent variable is the ratio  $B_t/WW$  as defined in (7).

In comparing the results shown in Table 3 to those in Table 2, note the striking similarity for the regressions which exclude the trend squared terms. This suggests that trend and cyclical effects for 1960 to 1977 were not significantly different from those over the entire period. This increases confidence that concentration on the period 1960 to 1977 is not misleading. The large standard errors of the regression coefficients

TABLE 3. Regression results: ratio of UI benefits to gross and net wages in covered employment, United States 1960–1977 ( $t$ -statistics in parentheses)

	Regression coefficients			
	GB/W		NB/W	
	(1) Without $T^2$	(2) With $T^2$	(3) Without $T^2$	(4) With $T^2$
T	.00159 (7.16)	.000919 (0.68)	.00356 (12.0)	.00272 (1.49)
PIU	.00475 (4.72)	.00424 (2.90)	.00570 (4.22)	.00505 (2.57)
$T^2$		.00003 (0.50)		.00004 (0.47)
Intercept	.322 (71.3)	.326 (34.3)	.360 (59.4)	.365 (28.6)
$R^2$	.819	.822	.911	.912
F Statistic	34.0	21.6	76.7	48.6
DW	1.18	1.12	1.29	1.23
Degrees of freedom	15	14	15	14

TABLE 4. Regression results: ratio of UI benefits to gross and net wages in covered employment weighted by proportion of claimants by industry, United States 1960–1977 ( $t$ -statistics in parentheses)

	Regression coefficients			
	GB/WW		NB/WW	
	(1) Without $T^2$	(2) With $T^2$	(3) Without $T^2$	(4) With $T^2$
T	.000963 (4.15)	-.00113 (-0.86)	.00289 (9.64)	.000124 (0.07)
PIU	.00360 (3.42)	.00199 (1.40)	.00461 (3.38)	.00247 (1.35)
$T^2$		.000108 (1.61)		.000143 (1.66)
Intercept	.313 (66.2)	.326 (35.3)	.349 (57.0)	.366 (30.8)
$R^2$	.639	.695	.869	.890
F Statistic	13.3	10.7	49.6	37.8
DW	1.81	1.75	1.78	1.69
Degrees of freedom	15	14	15	14

in columns (2) and (4) of Table 3 are most likely the effect of multicollinearity between the trend and trend squared terms. This colinearity is greater over the shorter period 1960 to 1977, than it is over the longer period 1950 to 1977.

When  $B_t/WW$  is used as the dependent variable, the estimated trend coefficients are reduced but are still statistically significant, as columns (1) and (3) of Table 4 show. Using the regression coefficient of  $T$  in columns (1) and (3) of Table 4 it could be concluded that the ratio of average weekly benefits of UI recipients to their average weekly wages before and after taxes increased respectively by at least 0.1 and 0.29 percentage points per year. If the ratio of average wages of UI recipients to our weighted average wage were 0.5, then these rates of increase would be 0.2 and 0.58 percentage points. Due to multicollinearity, introduction of the trend squared term ( $T^2$ ) into the regressions does not allow any conclusion about the existence of a nonlinear trend.

## Summary and Conclusions

Data on the ratio of weekly benefits to preunemployment wages of UI recipients are needed if it is to be possible to accurately assess the adequacy or work disincentive effect of UI benefits. Unfortunately, adequate data on weekly wages of UI recipients are not available. Data on average weekly wages in covered employment has been used to try to make inferences concerning the trend in average weekly benefits to average weekly wages of recipients of UI.

A perusal of the changes in UI benefit formulas among the States since 1960 suggests that there has probably been some increase in average benefits relative to average wages of recipients. If controls are used for factors which would cause the ratio of wages of recipients to wages of the covered employed to vary, then the ratio of benefits to wages in covered employment can be used to estimate a lower bound on the trend in benefits to wages of recipients.

Data for the years 1950 to 1977 were used, controlling for cyclical factors by using the PIU in a multiple regression analysis. Lower bound estimates of increases in average weekly benefits of 0.15 and 0.37 percentage points per year relative to gross weekly wages and weekly wages after taxes were obtained. Using data from 1960 to 1977 and controlling for the industry mix of claimants relative to the mix for the covered employees by using a weighted average wage lowers these estimates to 0.1 and 0.29 percentage points, respectively.

These latter estimates are probably more reliable. The actual trend in the ratio of benefits to wages is very likely larger than these estimates since the ratio of average wages of claimants to average wages in covered employment is probably less than one. For example, if this ratio were 0.5, our estimated trend coefficients imply increases of 0.2 and 0.58 percentage points per year in weekly benefits relative to gross and net weekly wages, respectively. Over a 20-year period, from 1960 to 1980, for example, this would amount to increases of 4 and 11.6 percentage points in the ratio of weekly benefits to gross and net weekly wages of recipients.

## Notes

1. Some States do have some data on quarterly earnings of UI beneficiaries. For example, there are data for Arizona beneficiaries from 1963 to 1971 and for Pennsylvania beneficiaries from 1966 to 1968. See Louis Jacobson and Kathleen Classen, *Arizona Employment and Unemployment Data Codebook* (Alexandria, Va., Center for Naval Analyses, 1978), and Louis Jacobson and Kathleen Classen, *Pennsylvania Continuous Wage Benefit History Codebook* (Alexandria, Va., Center for Naval Analyses, 1978). Currently, 14 States are developing data files under the Continuous Wage Benefit History project. These files will contain data on weekly wages as well as quarterly earnings of beneficiaries.

2. Phillip Cagan, "The Reduction of Inflation and the Magnitude of Unemployment" in William Fellner, ed., *Contemporary Economic Problems 1977* (Washington, D.C., American Enterprise Institute), p. 33.

3. Glen G. Cain, "The Unemployment Rate as an

Economic Indicator," *Monthly Labor Review*, vol. 102, no. 3 (March 1979), p. 29.

4. U.S. Employment Training Administration, *Comparison of State Unemployment Insurance Laws* (Washington, D.C., U.S. Government Printing Office, 1980), pp. 3-2 to 3-11.

5. U.S. Employment and Training Administration, *Significant Provisions of State Unemployment Insurance Laws* (Washington, D.C., various years).

6. U.S. Employment and Training Administration, *Unemployment Insurance Statistics*.

7. In an earlier version of this report, presented at the Western Economic Association meetings under the title "The Contribution of the Unemployment Insurance Weekly Benefit to the Increase in the Natural Rate of Unemployment," age, sex, and occupational characteristics of UI claimants were used as control variables. However, since it is the characteristics of the insured unemployed relative to those of the covered employed that are relevant, those results are not reported here.

## Appendix: Data Sources

1. GB/W—For 1953 to 1976, U.S. Employment and Training Administration (1978), *Handbook of Unemployment Insurance Financial Data* (hereafter Handbook) (p. 184, column 33). For 1977, Unemployment Insurance Service, U.S. Department of Labor.

2. NB/W—This is the ratio of average weekly UI benefits (p. 174, column 32 of the Handbook) to average weekly wages in covered employment (p. 171, column 6 of the Handbook) adjusted for Federal, State, and local payroll and income tax burden. For 1953 and 1974, data on tax burden are from Advisory Commission (1975) (p. 6, Table 1). The data used were for "average family" earnings of \$5,000 in 1953 and \$13,000 in 1974. The taxes included (1) Federal personal income taxes, (2) social security taxes (OASDHI), and (3) State personal income taxes. For 1972, these data are from Advisory Commission (1974) (p. 54, Table 39). For 1966 and 1977, Advisory Commission (1979) (p. 31, Table 22). For 1975, Advisory Commission (1976) (p. 41, Table XVII). Note that NB/W was calculated as  $AWB/AWW(1-TR)$ , where  $AWB$  = average weekly benefits, and  $TR$  = tax rate. For those years between 1953 to 1977 with missing data we used straight line interpolation.

3. PIU—This is the average weekly number of claims for UI as a percent of average monthly employment (Handbook, p. 174, column 31). For 1977, Unemployment Insurance Service, U.S. Department of Labor.

4. Proportions of UI claimants from the following industries: mining contract construction; manufacturing; public utilities; trade; finance, insurance, real estate; services; and State and local government.—Unemploy-

ment Insurance Statistics (Table 26). Also in U.S. Bureau of Labor Statistics (1975 and 1976) but this latter source does not list State and local government separately from "all other" category. Neither does the former source prior to 1971. However, prior to that year, covered employment and claimants from State and local government were negligible. We assumed them to be zero.

5. Average weekly wage in covered employment in each of the above industries.—Calculated from data on employment and wages by industry that was provided by the Bureau of Labor Statistics. However, these same data are available in U.S. Bureau of Labor Statistics, *Employment and Wages*. We use the industry "transportation" which includes public utilities in these data as the match for "public utilities" in the claimant data.

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# Unemployment Insurance and Consumption

Daniel S. Hamermesh

As part of its reevaluation of the role of unemployment insurance (UI), the National Commission on Unemployment Compensation has been mandated to examine "the adequacy . . . of changes in . . . benefits," and of the "feasibility of developing . . . Federal minimum benefit standards."<sup>1</sup> Given the host of equity and efficiency issues involved, it is impossible to determine a definitive level of benefits that is appropriate. This study extends the literature on benefit adequacy by integrating it into the permanent income theory of consumption. Its aim is to develop a standard for determining the appropriate level of benefits outside both the goals of ensuring work incentives and redistributing income. The determination is based on the theory that benefits are "adequate" if UI recipients can maintain consumption along their optimal path; inadequate if they cannot.

This theory carries with it hypotheses concerning consumption. It suggests that UI benefits will, at times, be partly spent and partly saved, like other income, and, at other times, entirely spent (by those who are forced below their optimal lifetime consumption path). It also suggests that benefit recipients will spend larger shares of their income on necessities and that their marginal propensities to spend benefits will be higher on luxuries and lowest on necessities—that recipients who cut back on consumption will decrease their spending on luxuries, and, conversely, restore luxury items when additional benefits are received.

This report presents the results of the tests of the basic theory and its correlates, based on data from the 1972–73 Consumer Expenditure Survey (CEX). In both samples studied, nearly the majority of families found benefits adequate. Benefits appeared more likely to be inadequate among poorer families. In each sample, among the 31 commodity groups examined, there was a positive correlation between the group's income elasticity and UI recipients' marginal propensity to spend benefits on the commodity. Further, recipients spent more of their total income on commodities with low-income elasticities and less than other people on income-elastic goods.

Because the notion of setting a minimum standard benefit clearly stems from the literature on benefit

adequacy in UI, a critical discussion of that literature is presented first. Then, because the theory of benefit adequacy tested here is fundamentally different from that contained in the previous literature, a detailed description of the theory and its implication also precedes the study results. These results are the first to estimate the extent to which UI benefits prevent hardship by maintaining consumption at levels that would have occurred had the unemployed been able to plan completely for the spell of unemployment. Further, the extent to which this income-maintenance goal is or is not met will be analyzed in terms of some of its objective correlates: income levels and size of assets. Thus, the fraction of UI benefits accrued to individuals who "need" them can be determined, and the kinds of individuals who would, in the absence of UI benefits at least equal to those they currently receive, suffer the most severe declines can also be determined.

## Benefit Adequacy—The Literature and Its Shortcomings

In the middle 1950's, the U.S. Department of Labor (DOL) commissioned a number of surveys to examine the adjustments to unemployment made by UI beneficiaries. These studies were conducted in six States and were based on retrospective data in which the respondents discussed their income and expenditures during the period just prior to the survey.<sup>2</sup> Basically, each study divided expenditures into "deferrable" and "nondeferrable." The change in expenditures during unemployment as compared to the preunemployment period was examined as were the fraction of nondeferrable benefits covered by UI benefits and the selected financial adjustments (dissaving) that were made.

Based on his examination of results from these studies, Joseph Becker concluded that, in a number of cases, particularly those of labor force members who were unemployed in times of high aggregate unemploy-

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ment, the benefit amount was inadequate—it did not cover the family's nondeferrable expenditures. Becker proposed that this problem stemmed from the limitations on maximum weekly benefit amounts. His analysis thus produced the specific conclusion that, *in terms of his definition of adequacy*, benefit adequacy would be enhanced if limitations on benefit maximums were relaxed. Because he found, too, that his criterion was less likely to be met by families in which there were more dependents, he argued that adequacy would be strengthened through expanded programs of dependents' allowances.<sup>3</sup>

The deferrable-nondeferrable distinction arbitrarily classified as nondeferrable only expenditures on food, clothing, medical care, and housing. This classification was expanded and renamed "recurring" expenses by Saul Blaustein and Paul Mackin when they added any expenditures made on a regular basis to repay outstanding debt. In their 1977 study of South Carolina, they found that over two-thirds of beneficiary households had sufficient income to meet recurring expenses. This was more likely to be true among households in which the UI recipient was a woman or one of several wage earners and less likely where the beneficiary was the sole earner or a man. They concluded that policies that raised maximum weekly benefits would increase benefit adequacy as measured by their criterion.<sup>4</sup>

The most recent study of benefit adequacy is the 1978 study of Arizona by Paul Burgess and Jerry Kingston. They expanded the Blaustein-Mackin categorization of recurring expenditures, adding transportation, insurance, payments for regular services, and regular support payments. This category of spending was named "necessary and obligated" expenses. As in the other studies, the data on preunemployment spending patterns were retrospective. The authors found that a majority of beneficiaries reduced consumption during periods of unemployment; this was especially true for families for which the weekly benefit amount was a small fraction of the recipient's contribution to necessary and obligated expenses prior to unemployment.<sup>5</sup>

Although based on expanded definitions of expenditure categories, the Burgess-Kingston work implies the same objective conclusions as those of Becker, Blaustein, and Mackin—increased benefit maximums and expanded dependents' allowance are recommended means of increasing benefit adequacy as defined in the study. In this case, the authors note that most of the effect of such legislated changes would occur through aid to larger families that, in the absence of such legislated changes, would fall into the lowest benefit-adequacy categories.<sup>6</sup>

There are several serious problems common to all three of these studies and, indeed, to the whole concept of benefit adequacy as defined in the literature. First, can an outsider determine which expenses are truly nondeferrable; that is, which expenses an individual or

family regards as not being marginal.<sup>7</sup> Second, an objective, absolute approach has proponents arguing for an ever-declining replacement rate. If nondeferrable expenses constituted 80 percent of net income in the 1950's, then adjusting per capita incomes for inflation over 20 years would indicate that, in 1975, these expenses constituted only 50 percent.

To circumvent these difficulties, this report evaluates benefit adequacy in the context of the UI recipient's behavior, but without the presumed categorization of different types of expenditure. Instead, benefits are seen as adequate or inadequate depending on the changes in the amount and pattern of consumption that occur when the benefits are received. Benefits are adequate, according to this view, to the extent they are spent the same way people otherwise identical to the recipient would spend their incomes. In this view, dissaving and labor force adjustments by other family members are not evidence that benefits are inadequate, as they may reflect *planned* adjustments to expected periods of unemployment. In this view, then, benefits are inadequate when they fail to prevent a shortfall of consumption below the level achieved had the family been able to plan for the spell of unemployment in its consumption-saving and labor force behavior. This view cuts through the problems of classifying commodities and accounting for rising living standards by placing the concept of benefit adequacy in the framework of consumer economics—to what extent is there a shortfall of utility below an optimal lifetime path when the individual experiences a partly compensated week of unemployment?

## A Theory of UI and Consumption Behavior

A simple model was designed to motivate the empirical work to estimate the response of consumption to unemployment benefits. The model rationalizes a differential response to UI, as opposed to other income, by pointing to liquidity constraints induced by imperfect capital markets within a model embodying perfect foresight.<sup>8</sup> The model describes the behavior of UI recipients affected by the receipt of UI in the sense that it is spent differently from other income flows. As such, it provides the basis for constructing empirical models that allow the estimation of the fraction of UI benefits accruing to individuals who are constrained.

Consider a consumer who lives three periods, working in the first two and living off savings in the third. This consumer has discount rate  $\rho$ , and seeks to maximize consumption

$$V(C_1) + \frac{V(C_2)}{1 + \rho} + \frac{V(C_3)}{[1 + \rho]^2},$$

$$V' > 0, V'(0) \rightarrow \infty, V'' < 0 \quad (1)$$

For simplicity, it is assumed that consumers can lend freely at an interest rate of zero, but that they have an absolute liquidity constraint in that they cannot borrow ( $r_b \rightarrow \infty$ ).<sup>9</sup> No initial endowment or bequests are assumed. The person receives income,  $Y$ , per period when employed and UI benefits,  $U$ , per period when unemployed, and knows that he or she will be unemployed for some fraction  $1 - \beta$  of the first period. (Unemployment is assumed only in the first period so that the role of liquidity constraints can be shown; in this simple model liquidity constraints cannot face a person unemployed in the second period.) The consumer thus maximized equation 1 subject to

$$C_3 = Y[1 + \beta] + U[1 - \beta] - C_1 - C_2 \quad (2)$$

$$\beta Y + U[1 - \beta] - C_1 \geq 0 \quad (3)$$

$$C_1, C_2, C_3 > 0 \quad (4)$$

The first constraint implies no bequest is left; the second that no borrowing is possible in the first period; and the third set of constraints follows from the assumption of infinite marginal utility of consumption at  $C = 0$ . Conditions for the maximization set by Kuhn and Tucker of equation 1 given equations 2, 3, and 4 are the following:

$$V'(C_1) - \frac{V'(C_3)}{[1 + \rho]^2} - \lambda = 0 \quad (5)$$

$$V'(C_2) - \frac{V'(C_3)}{1 + \rho} = 0 \quad (6)$$

and

$$\lambda[\beta Y + U(1 - \beta) - C_1] = 0$$

where  $\lambda$  is the Lagrangean multiplier. After substituting equation 6 into equation 5, the following equation results:

$$V'(C_1) - \frac{V'(C_2)}{1 + \rho} = \lambda \quad (7)$$

Two cases are possible: first,

$$V'(C_1) = V'(C_2)/(1 + \rho),$$

and  $\lambda = 0$ . In this first case, the consumer is not constrained in period 1 and is saving part of his or her income (earnings and UI benefits). An extra dollar of  $U$  in the first period increases consumption throughout the consumer's life so that the condition of equation 7 holds with  $\lambda = 0$  in the new equilibrium. In this case, 1 dollar of unemployment benefits affects lifetime consumption—both its amount and its allocation over time—precisely the same as a dollar of earnings received in period 1. In the second case,  $\lambda > 0$ , all first-period income is consumed, and second-period income is consumed according to the condition of equation 6. A 1-dollar increase in  $U$  will increase first-period consumption by 1 dollar, leaving  $C_2$  and  $C_3$

unchanged. This is different from the effect of an increase in the rate of earnings  $Y$ : the extra earnings in the first period will all be consumed, but those earnings received in the second period will be only partly consumed, to maintain the condition of equation 6.

An increase in  $Y$  can be viewed as an increase in permanent income: part of it will be saved and part consumed, both by individuals who are constrained in period 1 and by those who are not. Consider, though, the effects of an increase in  $Y$  in period 1 that is known to be only temporary. Such an increase will be treated by unconstrained individuals exactly as they treat increased  $U$ : it will be consumed in part, but most of it will be saved for future consumption. Constrained individuals, on the other hand, will spend each dollar of a transitory increase in  $Y$  in period 1, just as they spend each dollar of  $U$ .

Liquidity constraints can induce different spending out of UI and permanent earnings. Their effects are more likely to be observed among younger workers; in a model like this, expected unemployment in the second period would be saved for out of first-period income, and higher UI benefits would increase consumption in all three periods, thus increasing saving for retirement.<sup>10</sup> Effects of liquidity restraints are also more likely as the discount rate,  $\rho$ , increases, the fraction of time unemployed,  $1 - \beta$ , increases, and the replacement rate,  $U/Y$ , falls. Finally, the closer the borrowing rate approaches the lending rate (when the liquidity constraint is less binding because the penalty for borrowing against future income is less severe), the less likely are different patterns of spending UI benefits and other income.

This discussion also provides some insight into the justification for a system of UI benefits.<sup>11</sup> For individuals who are not constrained, lifetime utility exceeds the lifetime utility of constrained individuals with the same total income. The loss occurs because these individuals consume "too little" during the constrained period and "too much" during the rest of their lives and because the marginal utility of consumption in a period is assumed to be decreasing as consumption rises. In this view, UI "tides workers over" by enabling them, through a social mechanism, to smooth consumption over their lifetimes. Unless one takes this view, social insurance must be seen as a redistributive device which appears somewhat inconsistent with the early discussions and may be inconsistent with today's UI program (though not with Old Age Insurance).<sup>12</sup>

Constrained individuals will also consume a different mix of commodities than otherwise identical individuals who are not constrained. The unconstrained have total consumption determined, as usual, by the tangency of the relative price line between goods and their indifference maps. The constrained consume less in total; they maximize their (constrained) utility, having cut their consumption mainly by reducing their purchases

of relatively income-elastic goods. If the constrained individuals received sufficient UI benefits to restore their consumption, they would expand their purchases of all superior goods; but, because most of the reduced consumption was for luxuries, most of the purchases that restore their consumption will also be for luxuries.

The analysis carries two important implications: (1) to the extent that they are constrained, UI recipients will be observed devoting larger shares of their budgets to relatively income-inelastic goods than will otherwise identical individuals who are employed; and (2) propensities to spend out of UI benefits will be greatest on relatively income-elastic goods. Thus, if the notions presented here of constrained consumption by some UI recipients are correct, they imply some testable hypotheses about the patterns of consumption shares and propensities to spend on different commodities by UI recipients and others.

As with the implications of the theory for patterns of consumption by commodity, so too this work has testable and measurable implications for the pattern of total consumption as it responds to other income and UI benefits. A method of measuring the fraction of UI benefits or beneficiaries whose consumption is constrained can be devised by observing that, for them, the marginal propensity to consume out of UI benefits will be one, while for unconstrained individuals the propensity will be the same as that observed for non-recipients spending out of other income. This estimate will enable estimation of the fraction of UI benefits that accrue to families for whom benefits are adequate, in the sense that benefit adequacy was defined in the previous section.

The theory also suggests that the probability of being constrained varies with a number of observable characteristics of the individual. In particular, individuals would be more likely to be constrained if they are young (because they have not built up savings to draw on or have less likelihood of borrowing), and if they have fewer liquid assets upon which to draw. Similarly, if they have lower average incomes, they will be viewed as poor loan risks and be less likely to obtain borrowed funds with which to maintain consumption.

The policy implication of the estimates based on this economic view of consumption and UI benefits is both specific and general. The estimates of the fraction of workers for which consumption is constrained provides a general measure for evaluating the target efficiency of the UI program along the criterion—consumption maintenance—that was the initial justification for the institution. As such, it presents the first evaluation of the UI program's efficiency in meeting its basic purpose rather than, like the recent surge of studies on its labor-market effects, providing analyses of what are, essentially, indirect and secondary effects of UI, at least in terms of the program's political

justification.<sup>13</sup> Specifically, the analysis of the correlates of the probability of being constrained should enable the formation of inferences about the criteria along which benefit levels should be changed to improve benefit adequacy without raising program costs. In this regard, the findings on the relationship between the probability of being constrained and one's usual income level are likely to be most important; that measure would tell, for example, whether benefit amounts in relation to base-period earnings should be structured so that net replacement rates depend upon earnings levels.

## **Estimates From the Consumer Expenditure Survey**

### **Selection of data**

The sample chosen for this report's study is from the 1972–73 CEX of the Bureau of Labor Statistics (BLS). Michael Carlson describes the sample in detail,<sup>14</sup> but for the purposes of this report it should be noted that much of the data (the part used here) are based on a panel of households that was interviewed quarterly about expenditures over a 15-month period. One panel was interviewed for the 1972 sample, another for the 1973 sample. The surveys provide a wealth of data on expenditure by type, income by source, and taxes and asset holdings. Unfortunately, only 1 year's data on income is available for each household; there is no overlap between households in the 2 years sampled. This means that it will be impossible to construct a measure of permanent income for each household. Instead, thought will be given to the potential biases this failure may introduce into the estimates, and the estimates will be evaluated accordingly.<sup>15</sup> The CEX is, however, superior to the other potential data sources and for the purposes of this study appears to be the best choice available.

In selecting a subsample from each year of the CEX to use in the analyses presented here, households whose behavior was likely to be grossly different from most of the sample in ways that are important to the estimates used of spending propensities out of various income sources were disqualified. As Table 1 shows, the full CEX samples comprised 9,869 and 10,106 households in 1972 and 1973 respectively. As an initial cut, households were disqualified for one of the following reasons: (1) they were in the survey for only part of the sample year; (2) they either refused to report their incomes or reported incomes incompletely; or (3) they had a household head who was self-employed. A second round of disqualifications was also made to remove observations for groups that appeared to have consistent underreporting or misreporting of income or consumption. The disqualification criteria used were

TABLE 1. Sample taken from 1972-73 CEX for analysis of consumption patterns and UI benefits

Sample	1972			1973		
	UI house- holds	Non-UI house- holds	Total	UI house- holds	Non-UI house- holds	Total
Initial			9,869			10,106
After first disqualification			8,596			8,770
After second disqualification	368	6,690	7,058	290	7,031	7,321
Final	367	6,660	7,027	288	6,986	7,274

these: (1) head is at least 70 years old; (2) no information is provided on the head's marital status; or (3) no information is provided on the employment status of the head or spouse.

The samples of 7,058 households in 1972 and 7,321 in 1973 were then prepared for analysis. The simple regression,

$$C = a + bYNET, \quad (8)$$

where  $C$  equals all consumption, and  $YNET$  equals total net income after taxes, was estimated. The estimated value of  $b$  was less than 0.2 in each sample, far too low to make economic sense, even when one recognizes that, because  $YNET$  is the sum of permanent and transitory income, the true value of  $b$  will be below that estimated in most time-series studies. Most likely, for a few observations, income was severely misreported, though consumption was not. Accordingly, the sample was truncated to exclude all households that reported negative net income or net income greater than \$50,000 in the survey year. Also, one household in 1973 listed UI as \$22,000; that observation too was deleted. These final disqualifications removed only 0.5 percent of the sample, only one household with UI income in 1972 and two in 1973, leaving samples of 367 and 288 UI recipient households and 6,660 and 6,986 other households in 1972 and 1973 respectively.

The thousands of consumption categories in the CEX were combined by using several general criteria. First, where possible, durable goods purchases were kept separate from charges for past purchases. Ideally, value of services derived from durable goods would have been computed. Even in the case of housing, though, this was not possible, as no information was provided in the survey on the net value of owner-occupied housing. In that case, housing expenditures made by homeowners was kept as a separate category from those made by renters. Second, in-kind consumption of various types (such as food, clothing, health care) were added to the monetary expenditures in the appropriate categories and also to after-tax income. Beyond that, the BLS categories are used for reporting results

from this survey (BLS, 1977). The result was 31 consumption categories.

The sum of spending in the 31 categories was used as the measure of total consumption,  $C$ . This variable does not measure consumption as economists usually do. Some durable goods purchases are included, making it more a spending and less a consumption measure. This, in addition to the failure to observe permanent income, is another reason to expect the estimate of  $b$  in equation 8 to fall below what is usually produced in time-series studies. This problem is common to all studies that use cross-sectional microdata and should be noted when interpreting the study results.<sup>16</sup>

Two income variables were used in the estimates. The first is reported receipts of government unemployment insurance, including regular State UI, extended benefits, unemployment compensation for Federal employees (UCFE), and unemployment compensation for ex-servicemen (UCX). Other net income,  $Y$ , was calculated as gross income including nonpurchased consumption (minus personal taxes, retirement, and other deductions) and UI. Essentially, the dichotomy breaks total spendable income into UI and other net income.

There are likely to be substantial differences among the households in their propensities to spend, both in total and on different commodities. Some may be correlated with the income variables of particular interest here. To account for this, estimates held constant a number of characteristics of the household. The first set of variables was designed to account for the possibility that the cost of living might be higher in metropolitan areas than elsewhere, and that people reacted to this myopically by consuming more. This effect was measured by a pair of dummy variables: the first takes the value 1 for households in standard metropolitan statistical areas (SMSA's) with populations over 400,000; the second equals 1 in other SMSA's.

The second set of control variables attempted to measure differences in tastes that may be correlated with income. Some research has shown that blacks have higher average propensities to save at given incomes than do whites.<sup>17</sup> Thus, included was a dummy variable equaling 1 if the household head was white. Because of life-cycle considerations, consumption may be lower for equal-income young households than for others and may be higher for equal-income older households.<sup>18</sup> These possibilities are represented by inclusion of a dummy variable equaling 1 for households in which the head is less than 25 years old and another equaling 1 if the household head is over 55.

The final set of control variables accounts for differences in family composition. (Though effect of these variables is, of course, inconsistent with the permanent-income hypothesis, perhaps for reasons of reporting these effects have been observed in other data sets.<sup>19</sup>) Accordingly, included were variables for the number of

persons in the household, the number of children less than 6 years old, and the number of children ages 6 to 17.

Much of the discussion in the preceding section of this report is based on the notion of lack of access to borrowed funds or of readily available liquid assets. While not used as a control variable, the role of liquid assets is used in the analyses of whether UI recipients' spending is here constrained. Checking and savings account balances are combined into a measure of liquid assets available to each household.

Table 2 presents the means and standard deviations of each of the income and control variables used in the analyses, broken down separately for UI recipients and others and for 1972 and 1973. As Table 2 shows, other incomes are clearly lower for UI recipients than nonrecipients, which is not surprising, since the UI recipients must incur a loss of earnings to qualify for benefits. Their lifetime incomes may, though, differ little from those of nonrecipients in the sample: if net

replacement rates of 0.6 were assumed, the net income of UI recipients in the 1972 and 1973 samples, had they been employed the full year, would have been \$10,343 and \$10,778 respectively. These figures are not significantly greater than the figures for nonrecipients. When it is remembered that the other income of UI recipients is likely to be swollen by labor-force entry of other household members, it is likely that UI recipient households differ only little from others in their average incomes, probably being somewhat lower.

The fraction of households receiving UI income in the sample was consistent with the number of UI recipients in the population. Moreover, the decline in this fraction between 1972 and 1973, from 0.052 to 0.040, is consistent with the reduction in the number of UI recipients as the economy neared its cyclical peak in late 1973. The households receiving UI differed significantly from other households along several of the criteria discussed earlier. UI recipient households were more likely to be white, a fact that bears out observations of UI recipients as compared to the average unemployed person.<sup>20</sup> They were more likely to be below age 25 and less likely to be above age 55. (This latter difference clearly stems from the lack of eligibility for UI benefits among most of the retirees who compose a substantial part of the population over 55.) They had larger households, mainly, as shown by the relatively small differences in numbers of children between the two types of households, because the UI recipient household was more likely to contain a married couple. Finally, the UI recipient household reported significantly fewer liquid assets. It is unlikely that this reflects lower permanent wealth, as incomes when employed differed little between the two types of households. Instead, because liquid wealth was reported at the end of the calendar year in which the household is included in the survey, the difference likely reflects the fact that the UI recipient household drew down its liquid assets as part of its response to the reduced income attendant upon unemployment.<sup>21</sup>

### Equations and estimating procedures

As suggested earlier, the constrained household will have a marginal propensity of consumption (MCP) of 1—it will spend each extra dollar of UI benefits it receives. Thus, one way to draw inferences about the fraction of households whose spending is constrained is to examine how close to 1 is the spending propensity out of UI in equations linking consumption spending to UI and other income flows. An alternative, and one based on the narrowest possible interpretation of the model used here, is simply to assume that UI recipients with no liquid assets are constrained. This would be misleading for two reasons: (1) if UI recipients are observed only after a spell of unemployment, those

TABLE 2. Means and their standard deviations of income and control variables used in the analysis of consumption and UI

Variable	1972		1973	
	UI recipients	Others	UI recipients	Others
Other income in dollars	8,867 (280)	10,032 (76)	9,541 (297)	10,879 (79)
UI in dollars	885 (43)	— (—)	742 (40)	— (—)
Savings and checking balances in dollars	2,372 (303)	3,405 (103)	2,400 (302)	3,884 (122)
Percentage in large SMSA's <sup>1</sup>	0.441 (0.026)	0.446 (0.006)	0.417 (0.029)	0.438 (0.006)
Percentage in small SMSA's <sup>2</sup>	0.272 (0.023)	0.277 (0.005)	0.264 (0.026)	0.284 (0.005)
Percentage white	0.924 (0.014)	0.901 (0.004)	0.917 (0.016)	0.890 (0.004)
Family size	3.489 (0.103)	3.118 (0.022)	3.209 (0.102)	3.101 (0.021)
Percentage under age 25	0.101 (0.016)	0.081 (0.003)	0.135 (0.020)	0.083 (0.003)
Percentage over age 55	0.207 (0.021)	0.285 (0.006)	0.205 (0.024)	0.272 (0.005)
Number of children ages 6 to 17	0.992 (0.081)	0.848 (0.016)	0.840 (0.079)	0.829 (0.016)
Number of children ages 0 to 5	0.351 (0.035)	0.284 (0.008)	0.247 (0.032)	0.285 (0.007)
Percentage of sample	0.052	0.048	0.040	0.060

<sup>1</sup> Population over 400,000.

<sup>2</sup> Population 400,000 or less.

NOTE: Standard deviations of means are in parentheses.

with no liquid assets may have barely depleted them to maintain consumption while unemployed; and, more important, (2) the lack of liquid assets says nothing about a household's ability to maintain consumption by borrowing. Thus, the simple approach is not likely to be much help, so instead spending propensities will be examined in light of the implications of the theoretical model.

In estimating the response of total consumption spending to the various income flows, the ideal equation would be the following:

$$C = a_0 + a_1 YP(1-D) + [a_1\alpha + 1-\alpha] \times [YP + UP] \cdot D + (1-\alpha) [YT + UT] D \quad (9)$$

where  $YP$  is permanent non-UI income;  $YT$  is transitory non-UI income;  $UP$  is permanent or expected UI;  $UT$  is transitory or unexpected UI;  $D$  is a dummy equaling 1 for UI recipients, zero for others; and the  $a_i$  are parameters. Equation 9 is simply a weighted average of these three equations:

$$C = a_0 + a_1 YP \quad (9a)$$

$$C = a_0 + a_1 [YP + UP] \quad (9b)$$

$$C = a_0 + [Y + U] = a_0 + [YP + UP + YT + UT] \quad (9c)$$

Equation 9a characterizes nonrecipients and receives a weight  $1-D$ ; equation 9b describes recipients whose spending is not constrained and receives a weight  $\alpha \times D$ ; equation 9c states that the MPC for constrained recipients will equal 1, and it receives a weight of  $[1-\alpha]D$ .

The lack of longitudinal information on each household's income prevented the estimation of these theoretically correct income variables, even proxy measures. Because of this difficulty, the following equation was estimated:

$$C = b_0 + b_1 (YP + YT)(1-D) + b_2 (YP + YT)D + b_3 (UP + UT)D \quad (10)$$

or

$$C = b_0 + b_1 Y(1-D) + b_2 Y \cdot D + b_3 U \cdot D$$

where the  $b_i$  are parameters to be estimated by using the definitions that  $Y = YP + YT$  and  $U = UP + UT$ ; that is, actual  $Y$  and  $U$  are the sums of their permanent and transitory components.

In general, there is no way of linking the estimates of  $b_1$ ,  $b_2$ , and  $b_3$  to the parameter  $\alpha$  in equation 9. However, under two polar cases,  $\hat{b}_3$  can be used to produce an estimate, though likely a biased one, of  $\alpha$ . Case 1: All UI income is treated as transitory so that  $UP = 0$ . In that case  $E(\hat{b}_3) \leq (1 - \alpha)$  as  $r(YT \cdot D, U \cdot D) \leq 0$ ; that is, as the correlation between transitory other income and UI benefits is less than or greater

than 0 among the UI recipient households.<sup>22</sup> It is likely that this correlation is negative: households receiving larger than average UI are likely to be those that have suffered a transitory earnings loss. This means that  $\hat{b}_3$  overestimates  $1 - \alpha$ , the percentage of UI recipient households that act as though their consumption were constrained. Thus, any calculation based on  $b_3$  and on the assumption that all UI benefits are transitory should be viewed as an upper bound on the percentage of households that are constrained.

For case 2, all UI income is treated as permanent. In this case,  $\hat{b}_3$  is an estimate of  $a_1 \alpha + (1 - \alpha)$ . It may be biased for two reasons. First, if  $(Y \cdot D, UP \cdot D) \neq 0$ . However, because the discussion in note 22 and the previous literature suggest this correlation is small, it is unlikely that the bias arising from this source will be very great. Second, if  $E(\hat{b}_1) \neq a_1$ . In fact, for the reasons discussed earlier in examining the results of estimating equation 8,  $\hat{b}_1$  is likely to be an underestimate of  $a_1$ . That being the case, it is easily seen that calculating  $\hat{\alpha}$  as

$$\hat{\alpha} = \frac{1 - \hat{b}_3}{1 - \hat{b}_1}$$

produces an underestimate of  $\alpha$ . In case 2, as with case 1, attempts to use the estimates of equation 10 to derive estimates of the crucial parameter  $\alpha$  in equation 9 lead to underestimation of the percentage of households whose consumption is not constrained.

Examination of these two polar cases is the closest one can come to using the estimates of equation 10 to approximate the parameters in equation 9. Nonetheless, they are polar cases, and, in both, use of the estimated coefficients leads to overestimation of the percentage of households in which consumption is constrained. Therefore, whatever the mix of permanent and transitory income in UI benefits in this sample, the highest estimate of  $1 - \alpha$  is itself an overestimate of the true  $1 - \alpha$  and provides an upper bound on the true percentage of households in which consumption is constrained and thus for whom benefits are inadequate.

Although the following equation is not a perfect approximation to the true equation 9, it was also estimated:

$$C = d_0 + d_1 \{Y(1-D) + \alpha Y \cdot D + (1-\alpha)a^* [Y + U]D\} \quad (11)$$

where the  $d_i$  are parameters,  $\alpha$  is a function to be discussed below, and  $a^*$  is the inverse of the marginal propensity to consume. The equation is specified with  $a^*$  so that  $\frac{\partial C}{\partial U} = 1$  for that fraction,  $1 - \alpha$ , of UI recipients whose consumption is constrained. Equation 11 is implicitly specified under the assumption that all UI benefits are viewed as transitory. This is probably incorrect, but, as the main interest here is in using equa-

tion 11 to estimate the correlates of equation 9, this potential problem is not too serious.

As discussed earlier in this report, it is likely that greater income makes one a more desirable borrower, so that those with higher incomes are less likely to be constrained. Similarly, households with substantial liquid assets will be able to achieve their optimal life-time consumption profiles during periods of unemployment by drawing down these assets. Thus, it should be expected that

$$\alpha = \alpha(Y + U, LIQ) \quad (12)$$

where  $LIQ$  is the sum of savings and checking balances as noted earlier in this section. It is expected that  $\alpha$ , the probability that the household is not constrained, increases with increases in income and liquid assets. Equation 12 is specified as a function of all income, both UI and other income, based on discussions with a local financial institution.<sup>23</sup> For estimation purposes it is

$$\alpha = 1 / \{1 + \exp [-\beta_0(Y + U - \overline{Y + U}) - \beta_1(LIQ - \overline{LIQ}) + \beta_2]\} \quad (13)$$

where the  $\beta_i$  are parameters to be estimated. The hypothesis is that both  $\beta_0$  and  $\beta_1$  are positive. (The superior bar denotes a mean value.)

In addition to these equations describing aggregate spending, a series of equations characterizing spending on each commodity was specified. Again, because permanent income cannot be observed, these equations suffer from the same biases that afflicted equation 10. The equation set analogous to equation 10 was

$$C_i = b_{i0} + b_{i1} Y(1 - D) + b_{i2} Y \cdot D + b_{i3} U \cdot D, i = 1, \dots, 31 \quad (14)$$

where  $C_i$  is spending on the  $i$ th consumption category, and the  $b$  variables are parameters characterizing spending on items in that category.

Equations 10 and 14 were estimated by ordinary least squares on the data sets for 1972 and 1973. Equation 11 was nonlinear in the parameters. Although there are statistical routines to handle such problems, they are not designed to handle the massive numbers of data points in samples such as these. Accordingly, this equation was estimated instead by fixing values of  $\beta_0$ ,  $\beta_1$ , and  $\beta_2$ ; estimating the equation by ordinary least squares; and repeating the process to find the value that maximizes the likelihood function characterizing the equations. In all cases  $a^*$  was set equal to the value estimated from equation 10. For the 1972 sample, this value was 1.7766; for 1973, it was 1.8187. These values were specified ex ante because of the difficulty in estimating equation 11 if  $\partial C/\partial U$  for constrained recipients is fixed at 1. Despite this, the method used here ensures that, as desired,  $\partial C/\partial U = 1$  for this group, as equation 11 shows. Because of the

large number of observations, this search procedure is very expensive. Therefore, this specification was estimated only for a sample in which data for both years in the CEX were pooled.

### Estimates for total spending

Throughout all the estimation, the eight control variables discussed earlier were included. While they are not discussed further, it is worthwhile to consider their effects on total consumption spending desired in the estimates of equation 10. These are presented in Table 3. Consider first the cost-of-living variables. Apparently, at a given income level consumption spending is higher in metropolitan areas than it is elsewhere. This is consistent with earlier arguments that a given money income implies a lower real income in metropolitan areas and that this will be reflected in higher consumption spending. That this interpretation is reasonable is underscored by the observation that the effect is greater for larger than for smaller SMSA's. As in other studies, whites at a given income level spent more, or saved less, than did nonwhites. This phenomenon can be associated with a difference in tastes, but there is really no evidence that some other explanation is not equally acceptable. Younger households do not appear to spend in amounts significantly different from households where the head is between ages 25 and 54. However, households in which the head is 55 or over spent significantly less than did other households with equal incomes. This is inconsistent with the notion that these older households have significantly higher savings that they can draw down as part of rational planning for life-cycle consumption.

TABLE 3. Estimates of coefficients on eight control variables used in estimating patterns of consumption with UI

Variable	1972	1973
Large SMSA <sup>1</sup>	567 (8.82)	646 (6.41)
Small SMSA <sup>2</sup>	440 (3.53)	431 (3.94)
White	617 (3.87)	899 (6.59)
Family size	673 (10.47)	657 (11.57)
Number of children ages 0 to 5	-736 (-7.26)	-539 (-5.88)
Number of children ages 6 to 17	-433 (-5.69)	-367 (-5.49)
Head ages 25 or under	-1.30 (-0.01)	-261 (-1.67)
Head ages 55 or over	-1,025 (-4.98)	-967 (-9.33)
Constant	1,243 (5.84)	1,227 (6.60)

<sup>1</sup> Population over 400,000.

<sup>2</sup> Population 400,000 or less.

NOTE: F-statistics are in parentheses.

However, it is consistent with the possibility that the older households, either because of changes in life expectancy or insufficient foresight even in the absence of such changes, did not save enough for retirement early in their lives and must do so late in their work-lives if they are to even out consumption.

The family-size variables all had significant effects on consumption spending. An extra adult in the household adds over \$600 to spending (on a base of roughly \$9,000 in 1977, \$9,800 in 1973); an extra young child added essentially nothing to consumption spending (the effect is the sum of the coefficients on family size and the children ages 0 to 5 dummy variable); and older children added between \$200 and \$300 to spending. Each of these effects is consistent with one's prior expectations and with the findings of the studies on this subject cited earlier.

Inclusion of the eight control variables adds significantly to the ability to "explain" consumption spending in these samples. The *F*-statistics, *F*(8, *N* = 12) where *N* is the number of observations, were 40.20 and 58.92, far above the critical values for significance at the 1 percent level. This suggests that, at the very least, some residual variance from consumption spending has been removed. Whether the estimates of the effects of UI and other income on consumption would be biased had these controls not been included depends, of course, on their correlations with the income variables.

Table 4 presents estimates of various versions of equation 10. In each case the first equation presented for the sample is equation 10 as listed in the text. As expected, because of the inclusion of transitory income in measure *Y*, the estimated propensities to spend out of *Y* fell far short of those estimated in studies that include measures of permanent income. It was consistently found that only roughly 55 cents of each extra dollar of income was spent; this is in accordance with the observation in Table 3 that the constant term is fairly large relative to the mean of other income. Thus the average propensity to spend is a quite reasonable 0.9.

The crucial parameter is that on UI benefits. In 1972 we estimate this to be 0.62; in the 1973 sample, it is 0.83. Consider the implications of these coefficients, and the estimates  $\hat{b}_1$ , for the estimation of  $\alpha$  under the two polar assumptions discussed earlier (that UI benefits are either all transitory income or all permanent income). Under case 1, the implied estimate of  $\hat{\alpha}$  is 0.38 in 1972 and 0.17 in 1973. Under case 2, the estimates are 0.87 and 0.38 for the years 1972 and 1973, respectively. Clearly, the greater the degree to which recipients view UI benefits as part of permanent income, the lower the fraction of households that the estimates imply are constrained in their consumption behavior. Also, since it has been shown that in both polar cases the use of the estimates of equation 10 will produce a downward bias in the estimated fraction

TABLE 4. Estimates of coefficients on income terms in equations estimating consumption, 1972 and 1973

Year and equation	Other income		UI	R <sup>2</sup>
	Nonrecipients	Recipients		
1972				
Equation A <sup>1</sup>	0.5629 (63.07)	0.5452 (7.02)	0.6190 (3.00)	0.51
Equation B <sup>2</sup>	0.5627 (63.24)	0.5502 (27.08)	0.5502 (27.08)	0.51
Equation C <sup>3</sup>	0.5624 (63.27)	0.5624 (63.27)	0.5624 (63.27)	0.51
1973				
Equation A	0.5512 (73.89)	0.5181 (20.67)	0.8311 (3.21)	0.59
Equation B	0.5508 (73.93)	0.5357 (27.10)	0.5357 (27.10)	0.59
Equation C	0.5507 (73.92)	0.5507 (73.92)	0.5507 (73.92)	0.59
1972 Equation A <sup>4</sup>	—	0.5686 (15.86)	0.6976 (3.48)	0.56
1973 Equation A <sup>4</sup>	—	0.5217 (10.60)	0.8507 (2.85)	0.48

<sup>1</sup>  $C = b_0 + b_1 (YP + YT)(1 - D) + b_2 (YP + YT) D + b_3 (UP + UT) D$ .

<sup>2</sup> Equation A with the constraint  $b_2 = b_3$ .

<sup>3</sup> Equation A, specifying  $b_1 = b_2 = b_3$ , given  $b_2 = b_3$ .

<sup>4</sup> Data for UI recipients only.

NOTE: *F*-statistics appear in parentheses.

of households that are not constrained, and thus an upward bias in the estimated fraction that are, it may be safely concluded that the estimates imply that a substantial fraction of UI recipient households are not constrained in consumption. Thus, by the definition used here, this group finds UI benefits to be more than adequate.

The exact magnitude of this fraction cannot be determined without knowing the extent of the downward bias in the estimates of  $\alpha$  and the fractions of UI benefits that were viewed as permanent and transitory. However, a median estimate among those presented would be at least 0.4. It is clear that many UI recipient households do not use benefits to replace lost consumption that represents hardship.

The second equation in each set in Table 4 constrains  $\hat{b}_2 = \hat{b}_3$ . It allows the test of the hypothesis that spending propensities out of UI and other income by recipients are equal. *F*-statistics for the imposition of this constraint, *F*(1, *N* = 12), were 0.11 and 1.31 for the two samples. Though neither statistic was significantly different from 0, the test for 1973 did show that unconstrained estimates of  $b_2$  and  $b_3$  differ by more than one standard error. The third equation in each set specified that  $b_1 = b_2 = b_3$  given  $b_2 = b_3$ . Not surprisingly, given the relatively small number of households that received UI income, the estimated coefficient was quite close to that produced for  $b_1$  in the first version of this equation. The test statistics on this constraint,

$F(1, N = 11)$ , were 0.03 and 0.11, not significantly different from 0. For both samples, the hypothesis that the three spending propensities are the same cannot be rejected.

The impression given by the results for the entire sample is corroborated by the similarity of estimates based only on the households that received UI benefits. The coefficients in these equations on the two income variables are presented in the bottom part of Table 4. As in the complete samples, there was a greater response of consumption to UI benefits than to other income in both years. It may be concluded from this that there will be no artificial bias in the estimate of  $(1 - \alpha)$  induced by a possible misspecification of including nonrecipients (who may come from a population with different household characteristics) in the same sample with UI recipients.

The search procedure to estimate equation 11 with  $\alpha$  as in equation 13 was done first over a broad three-way lattice of parameter values then over a narrower lattice around the set of values that maximized the likelihood function on the first round of searches.<sup>24</sup> Despite this attempt to define the values precisely, it should be clear that the estimates are not exact but are instead only approximations.

A test for the validity of pooling the data in estimating equation 10 implied that the hypothesis that behavior differed between the two samples could not be rejected at the 1 percent level of significance, though it could be rejected at the 5 percent level. This implies that the pooling procedure is not too far wrong as a way of inferring behavior in the 2 years. The estimates of equation 11 in which  $\alpha$  is specified as a function of  $\beta_0$ ,  $\beta_1$ , and  $\beta_2$  are presented in Table 5. ( $\beta_0$  and  $\beta_1$  are shown multiplied by 1,000.) First consider the estimate of  $\bar{\alpha}$ , the mean probability of being unconstrained. Like the calculations above, it too indicates that the fraction of households that was constrained was much below one-half. The major concern focuses on the parameters  $\beta_0$  and  $\beta_1$ . Consider  $\beta_0$  first: it is positive, and, at least

with 90 percent confidence, it can be viewed as being significantly greater than 0. This indicates that the probability that a household can borrow or has sufficient savings to maintain its consumption during periods of unemployment is higher among higher-income households. Further insight into this relationship is derived from a consideration of the final row of figures in Table 5. They show that, while there is not much variation in  $\alpha$  for values of total net income around the mean, the probability of being constrained is substantial for households with very low incomes (at least one standard deviation below the mean). This suggests that, in terms of the definition of benefit adequacy used here, UI benefits are most likely to be inadequate for households with lower incomes among the population of households that receives UI.

The correlate hypothesis was that the amount of liquid assets—saving and checking account balances—would be negatively related to the probability that the household is constrained. As the estimates of  $\beta_1$  in Table 5 show, this hypothesis was not confirmed by the data. The estimate of  $\beta_1$  was negative, and the confidence interval around this estimate was essentially symmetric around 0. While there thus seems to be no relation between the amount of liquid assets a household has and the probability that its consumption is constrained, liquid assets are reported as of the end of the interview year, in most cases after the spell of unemployment is completed. As seen earlier, UI recipient households differed most from others in their much lower liquid assets. Presumably too, the households with the most severe spells of unemployment drew their assets down most. Thus, if longitudinal data had been available, they could have permitted measurement of liquid assets before the year started and would have shown them to exceed year-end assets most among recipient households that had enough assets to draw them down during the period of unemployment. Had initial assets been included in equation 13, a more positive value of  $\beta_1$  would have resulted. While the hypothesis is not truly verified, these data considerations suggest there is some slight possibility that it is correct.

TABLE 5. Estimates and calculations for parameters used in estimating consumption patterns for equation 11 where  $\alpha = \alpha(\beta_0, \beta_1, \beta_2; Y + U, LIQ)$

Item	$\beta_0^*$	$\beta_1^*$	$\beta_2$	$\bar{\alpha}$
Estimate	0.30	-0.05	-3	0.953
90 percent confidence level	(0.05, 0.55)	(-0.15, 0.15)	(-4.5, -1.5)	(0.818, 0.989)
95 percent confidence level	(0, 0.60)	(-0.15, 0.20)	(-5.5, -1.5)	(0.818, 0.996)

\* Times 1,000.  
NOTE: Where  $\alpha = \alpha(\hat{\beta}_0, \hat{\beta}_1, \hat{\beta}_2; Y + U, LIQ)$ , the following values apply. When  $Y = 0$ ,  $\alpha = 0.499$ ;  $\bar{Y} - \sigma_Y = \$4,789$ ,  $\alpha = 0.808$ ;  $\bar{Y} = \$10,009$ ,  $\alpha = 0.953$ ;  $\bar{Y} + \sigma_Y = \$15,229$ ,  $\alpha = 0.989$ ; and  $\bar{Y}_{max} = \$41,447$ ,  $\alpha = 0.999$ .

#### Estimates for spending by commodity

As in the estimates for total spending, each equation on spending for particular commodity groups (equation 14) contains the eight control variables. The estimates of their effects in each equation are not reported here; however, insofar as they were significant as a group in equation 10, it is likely that they aid in "explaining" variations in spending. (For example, consider the importance of the family size variables in the equations describing housing, men's clothing, or women's clothing.) The estimated coefficients on the income terms in equation 14 are shown in the first three columns of Tables 6 and 7. Not surprisingly, given the high degree

TABLE 6. Estimates of parameters and consumption shares, marginal-average expenditure ratios, and income elasticities for 1972

Commodity group	Parameter estimates				Adjusted consumption shares		$S_u \cdot \hat{b}_{is} / S_{iu} \cdot \hat{b}_a \dagger$	Income elasticity
	Y* (others)	Y (UI recipients)	UI	R <sup>2</sup>	UI recipients	Others		
Food consumed at home	0.029 (15.96)	0.033 (6.44)	0.040 (1.11)	0.37	0.1625	0.1520	0.400	0.212
Food consumed away from home	0.031 (31.27)	0.027 (9.90)	0.033 (1.42)	0.20	0.0382	0.0417	1.385	0.831
Alcohol	0.0068 (18.43)	0.0064 (6.14)	0.0301 (3.54)	0.07	0.0110	0.0088	4.433	0.838
Tobacco	0.00098 (2.60)	0.0032 (2.97)	0.0244 (2.79)	0.06	0.0205	0.0153	1.888	0.070
Rent	-0.0031 (-1.54)	0.0021 (0.37)	0.0398 (0.86)	0.13	0.0714	0.0635	0.884	-0.053
Spending on owner-occupied housing	0.071 (28.68)	0.053 (7.62)	0.141 (2.45)	0.18	0.0738	0.0816	3.120	0.975
Utilities	0.014 (24.97)	0.013 (8.81)	0.025 (2.11)	0.31	0.0457	0.0450	0.861	0.355
Telephone	0.0077 (24.97)	0.0073 (8.27)	0.0091 (1.27)	0.12	0.0187	0.0199	0.786	0.433
Domestic service	0.014 (24.61)	0.012 (7.87)	0.012 (0.98)	0.11	0.0668	0.0086	2.852	1.740
Other household expenditures	0.0035 (15.55)	0.0034 (5.31)	0.0052 (1.00)	0.05	0.0037	0.0037	2.280	1.036
Home furnishings	0.032 (24.03)	0.030 (7.86)	0.013 (0.43)	0.12	0.0466	0.0481	0.465	0.742
Cleaning	0.0047 (17.85)	0.0061 (8.24)	0.0090 (1.48)	0.10	0.0106	0.0094	1.365	0.547
Clothing, male	0.017 (37.67)	0.017 (31.26)	0.027 (2.51)	0.28	0.0229	0.0213	1.917	0.904
Clothing, female and infant	0.024 (34.39)	0.022 (11.22)	0.025 (1.57)	0.22	0.0300	0.0319	1.367	0.832
Shoes	0.0050 (34.78)	0.0052 (12.96)	0.0042 (1.27)	0.35	0.0100	0.0095	0.681	0.579
Clothing services	0.0017 (13.68)	0.0015 (4.28)	0.0018 (0.63)	0.08	0.0031	0.0033	-0.920	0.560
Owned vehicles	0.052 (14.29)	0.065 (6.36)	0.010 (0.12)	0.07	0.0973	0.0913	0.173	0.626
Other transportation	0.0013 (3.14)	0.0022 (1.89)	0.0055 (0.57)	0.05	0.0067	0.0061	1.317	0.234
Vehicle operations	0.035 (30.60)	0.050 (15.32)	0.038 (1.42)	0.31	0.1065	0.0896	0.568	0.431
Health	0.020 (14.31)	0.022 (5.72)	-0.005 (-0.16)	0.08	0.0556	0.0539	-0.151	0.405
Personal care	0.0071 (27.32)	0.0063 (8.61)	0.0149 (2.48)	0.16	0.0109	0.0116	2.218	0.681
Vacations	0.049 (28.95)	0.043 (9.01)	0.022 (0.04)	0.14	0.0299	0.0411	0.008	1.348
Admissions	0.010 (28.22)	0.010 (10.09)	0.014 (1.61)	0.14	0.0080	0.0083	2.800	1.368
Television, radio, etc.	0.0083 (15.24)	0.0073 (4.73)	0.0109 (0.87)	0.06	0.0162	0.0161	1.094	0.572
Photography	0.0028 (17.01)	0.0023 (4.94)	0.0005 (0.12)	0.07	0.0031	0.0035	0.245	0.880
Other recreation	0.0051 (19.67)	0.0039 (5.30)	0.0059 (0.98)	0.13	0.0048	0.0055	1.989	1.033
Reading	0.0039 (26.16)	0.0039 (9.22)	0.0018 (0.51)	0.13	0.0052	0.0056	0.552	0.778
Education	0.0111 (7.71)	0.0063 (1.55)	0.0066 (-0.20)	0.09	0.0129	0.0174	-0.828	0.717
Miscellaneous	0.0065 (7.16)	0.0068 (2.65)	0.0104 (0.49)	0.01	0.0094	0.0088	1.807	0.824
Personal insurance	0.0282 (36.20)	0.0232 (10.54)	0.0303 (1.68)	0.22	0.0239	0.0275	2.058	1.145
Gifts	0.0647 (18.32)	0.0516 (5.18)	0.0561 (0.69)	0.06	0.0346	0.0518	2.660	1.412
Average propensity to consume	—	—	—	—	0.9215	0.9022	—	—

\* Income net of UI.

†  $S_{iu}$  = unadjusted consumption of the commodity as a share of total income,  $b_{is}$  = marginal propensity to spend out of UI benefits.

NOTE: F-statistics appear in parentheses.

TABLE 7. Estimates of parameters and consumption shares, marginal-average expenditure ratios, and Income elasticities for 1973

Commodity group	Parameter estimates				Adjusted consumption shares		$S_u \cdot \hat{b}_{13} / S_{1u} \cdot \hat{b}_3 \dagger$	Income elasticity
	Y * (others)	Y (UI recip- ients)	UI	R <sup>2</sup>	UI recip- ients	Others		
Food consumed at home	0.034 (19.25)	0.039 (6.62)	0.046 (0.75)	0.42	0.1627	0.1550	0.340	0.244
Food consumed away from home	0.032 (35.07)	0.030 (10.07)	0.040 (1.28)	0.21	0.0432	0.0433	1.157	0.817
Alcohol	0.0064 (15.55)	0.0074 (5.33)	0.024 (1.65)	0.06	0.0114	0.0088	2.576	0.796
Tobacco	-0.0002 (-0.44)	0.0030 (2.45)	-0.0012 (-0.09)	0.05	0.0183	0.0144	-0.078	-0.013
Rent	-0.0053 (-2.56)	-0.0055 (-0.79)	0.098 (1.37)	0.12	0.0827	0.0668	1.414	-0.090
Spending on owner-occupied housing	0.071 (37.71)	0.061 (9.45)	0.087 (1.33)	0.27	0.0736	0.0826	1.492	0.970
Utilities	0.014 (26.18)	0.012 (6.69)	0.023 (1.22)	0.28	0.0448	0.0450	0.635	0.355
Telephone	0.0072 (23.03)	0.0064 (6.06)	0.015 (1.42)	0.11	0.0188	0.0189	1.004	0.424
Domestic service	0.012 (23.10)	0.019 (5.42)	0.022 (1.13)	0.11	0.0067	0.0094	4.144	1.523
Other household expenditures	0.0031 (12.85)	0.0028 (3.40)	-0.0002 (-0.03)	0.04	0.0031	0.0038	0.078	0.925
Home furnishings	0.036 (26.84)	0.031 (6.84)	0.038 (0.82)	0.14	0.0483	0.0510	0.979	0.783
Cleaning	0.0043 (17.72)	0.0029 (3.55)	0.0090 (1.07)	0.09	0.0077	0.0085	1.433	0.560
Clothing, male	0.016 (36.69)	0.018 (12.20)	0.025 (1.58)	0.26	0.0230	0.0204	1.336	0.901
Clothing, female and infant	0.022 (30.08)	0.023 (9.51)	0.018 (0.70)	0.18	0.0322	0.0320	0.687	0.772
Shoes	0.0049 (34.44)	0.0060 (12.69)	-0.0024 (-0.49)	0.33	0.0101	0.0092	-0.268	0.594
Clothing services	0.0016 (13.33)	0.0012 (3.02)	-0.0017 (-0.41)	0.06	0.0028	0.0030	-0.746	0.577
Owned vehicles	0.052 (15.40)	0.054 (7.45)	-0.031 (-0.26)	0.08	0.0925	0.0933	-0.405	0.625
Other transportation	0.0034 (9.11)	0.0025 (2.05)	0.015 (1.15)	0.05	0.0053	0.0056	3.466	0.676
Vehicle operations	0.036 (30.82)	0.047 (12.11)	-0.018 (-0.46)	0.33	0.1048	0.0901	-0.215	0.443
Health	0.020 (18.37)	0.031 (8.37)	-0.032 (-0.85)	0.15	0.0634	0.0552	-0.622	0.406
Personal care	0.0069 (28.96)	0.0070 (8.74)	0.0092 (1.12)	0.18	0.0108	0.0107	1.064	0.717
Vacations	0.044 (25.01)	0.047 (7.94)	0.026 (0.43)	0.10	0.0392	0.0388	0.829	1.258
Admissions	0.0097 (25.40)	0.010 (9.53)	0.018 (1.35)	0.12	0.0099	0.0089	2.183	1.215
Television, radio, etc.	0.0013 (13.52)	0.0033 (1.84)	0.052 (2.78)	0.06	0.0161	0.0152	3.939	0.527
Photography	0.0027 (17.27)	0.0025 (4.69)	0.0030 (0.54)	0.07	0.0037	0.0036	0.992	0.849
Other recreation	0.0061 (21.69)	0.0056 (5.91)	0.0020 (0.21)	0.15	0.0066	0.0070	0.381	0.969
Reading	0.0041 (26.62)	0.0033 (6.26)	0.0062 (1.15)	0.13	0.0049	0.0055	1.585	0.837
Education	0.011 (9.36)	-0.0028 (-0.72)	0.011 (0.29)	0.11	0.0059	0.0151	2.407	0.811
Miscellaneous	0.0077 (12.73)	0.0068 (3.35)	0.012 (0.57)	0.03	0.0087	0.0091	1.753	0.959
Personal insurance	0.027 (36.27)	0.021 (8.63)	0.018 (0.71)	0.22	0.0225	0.0272	1.031	1.109
Gifts	0.057 (33.16)	0.042 (7.32)	0.282 (4.74)	0.16	0.0476	0.0470	7.587	1.348
Average propensity to consume	—	—	—	—	0.9165	0.8942	—	—

\* Income net of UI.

†  $S_{1u}$  = unadjusted consumption of the commodity as a share of total income,  $b_{13}$  = marginal propensity to spend out of UI benefits.

NOTE: F-statistics appear in parentheses.

of disaggregation, the fractions of the variances of spending that are explained for each commodity are fairly low.<sup>25</sup> Nonetheless, the effect of UI benefits on spending is positive in all but two consumption categories in the 1972 sample and in all but seven in the 1973 sample. Twelve of the coefficients are significantly greater than 0 in a 10 percent, one-sided test for 1972, as are 8 in 1973. Most of the terms on  $Y$  are significantly positive, both for UI recipient households and others. Where this is not the case (rent and tobacco, for example), the commodity is one that was expected to be inferior.

As a brief check on these results, equation 14 was reestimated for recipient households only. The results of this estimation are shown in Table 8. Again, the  $R^2$  are of the same fairly low magnitude found in Tables 6 and 7. As in the estimates for aggregate consumption, pooling beneficiary households and others hardly changes the results for beneficiary households.

The main interest in estimating equation 14 was to test the hypothesis that there is a relationship between spending propensities by commodity out of UI benefits and the commodity's income elasticity. Income elasticities were calculated at the means of consumption and income for nonrecipients by using the estimates of  $b_{i1}$  presented in Tables 6 and 7. Incomes of nonrecipients were used to avoid possible contamination by behavior among UI recipients, the group whose spending propensities by commodity were to be compared to the income elasticities. The income elasticities are presented in the final columns of Tables 6 and 7. Apparently the aggregation of the thousands of individual commodities into 31 groups still left room for substantial diversity: the income elasticities ranged from  $-0.06$  to  $1.74$  in 1972 and from  $-0.09$  to  $1.52$  in 1973. The only difficulty was that the median values of these elasticities were  $0.74$  in 1972, and  $0.78$  in 1973, substantially less than the value of unity consistent with the theory of consumption. The low values are undoubtedly the result of the inability to measure permanent incomes; they reflect spending out of the sum of permanent and transitory incomes, which will necessarily be less elastic than that out of permanent income.

The pattern of values of the income elasticities by commodity is in accordance with one's expectations. Vacations, gifts, domestic service, admissions to spectator events, personal insurance, and miscellaneous recreation spending were all found to be highly income elastic. These are commodities that are generally associated with purchases by higher-income people. Conversely, food consumed at home, tobacco, rent, and utilities had the lowest estimated income elasticities.<sup>26</sup>

As a simple preliminary test of the hypothesis that propensities to spend out of UI are related to income elasticity, elasticities were compared among commodity groups in relation to adjusted consumption shares

in the recipient and nonrecipient households. Because UI recipients' total incomes were lower than those of nonrecipients, a comparison of spending shares would give a biased result, for the UI recipients' spending will be disproportionately for income-inelastic items (because of their lower incomes). To circumvent this problem, Tables 6 and 7 present adjusted consumption shares for UI recipients, calculated as follows:

$$\frac{(\hat{C}i)}{C} = \frac{[1 + \epsilon P]}{[1 + \epsilon P]} \cdot \frac{Ci}{C}$$

where  $P$  is 1 minus the ratio of UI recipients' to others' average incomes,  $\epsilon$  is the elasticity of  $C$  with respect to  $Y$ , and  $i$  is the elasticity of  $Ci$  with respect to  $Y$ , both based on the parameters estimated for nonrecipients. Weighted averages of income elasticities were calculated for the 31 commodity groups, classified according to whether the adjusted consumption share was greater among UI recipients or other households. (The weights are consumption shares in the population of households that do not receive UI.) If the hypothesis is correct, the consumption of UI recipients would be tilted disproportionately to income-inelastic items.

This is precisely what occurred: in 1972 and 1973, the average income elasticities were  $0.334$  and  $0.443$  respectively for those commodities that formed a larger share of the budgets of UI recipient households than they did in the budgets of nonrecipients. On the other hand, the average income elasticities were  $0.992$  and  $0.742$  for commodities that were consumed in greater proportions by households that did not receive UI. This is consistent with the discussion presented earlier: UI recipients cut back their consumption of those items that are income elastic, and their budgets were then weighted disproportionately toward income-inelastic commodities. A classification based on unadjusted consumption as a share in income,  $Ci/(Y + U)$ , yielded similar results.

The hypothesis also implied that UI recipients will use extra dollars of benefits to increase disproportionately their consumption of the income-elastic commodities whose consumption is cut when income falls. To make this comparison, the ratio  $\hat{b}_{iu}/S_{iu}$  is calculated, where  $S_{iu} = Ci/(Y + U)$ . Essentially this is the ratio of the marginal propensity to spend out of UI benefits to the share of the commodity in the average UI recipient's total net income. To standardize this ratio, and thus account for the fact that marginal propensities to spend in this sample were below-average propensities, the ratio was multiplied by  $S_u/\hat{b}_s$ , where  $S_u = C/(Y + U)$ . The standardized ratios are shown for the two samples in Tables 6 and 7. A perusal of them as compared to the income elasticities in the last column of these tables suggests that the hypothesis is confirmed. For the four commodities—food consumed at home, clothing services, owned vehicles, and health—for

TABLE 8. Parameter estimates for UI recipients for 1972 and 1973

Commodity group	1972			1973		
	Y*	UI	R <sup>2</sup>	Y*	UI	R <sup>2</sup>
Food consumed at home	0.0488 (5.19)	0.1106 (2.11)	0.378	0.0507 (4.66)	0.1090 (1.65)	0.503
Food consumed away from home	0.0300 (7.59)	0.0293 (1.33)	0.217	0.0292 (5.68)	0.0478 (1.53)	0.237
Alcohol	0.0030 (1.67)	0.0194 (1.91)	0.044	0.0080 (2.97)	0.0247 (1.51)	0.085
Tobacco	0.0027 (1.26)	0.0220 (1.84)	0.084	0.0067 (2.60)	0.0086 (0.55)	0.074
Rent	0.0090 (0.77)	0.0521 (0.81)	0.107	-0.0087 (-0.55)	0.0373 (0.39)	0.180
Spending on owner-occupied housing	0.0454 (5.18)	0.0996 (2.03)	0.194	0.0358 (3.03)	0.0159 (0.22)	0.196
Utilities	0.0115 (4.57)	0.0153 (1.32)	0.276	0.0180 (4.96)	0.0315 (1.43)	0.265
Telephone	0.0086 (6.27)	0.0163 (2.12)	0.165	0.0067 (3.06)	0.0191 (1.44)	0.100
Domestic service	0.0109 (6.26)	0.0079 (0.81)	0.190	0.0057 (2.52)	0.0101 (0.74)	0.069
Other household expenditures	0.0032 (3.14)	0.0048 (0.84)	0.052	0.0038 (4.15)	0.0038 (0.63)	0.115
Home furnishings	0.0257 (4.52)	-0.0080 (-0.84)	0.088	0.0301 (4.54)	0.0285 (0.71)	0.123
Cleaning	0.0074 (4.92)	0.0164 (1.94)	0.099	0.0024 (1.74)	0.0051 (0.61)	0.112
Clothing, male	0.0166 (8.62)	0.0241 (2.24)	0.325	0.0199 (6.84)	0.0356 (2.02)	0.280
Clothing, female and infant	0.0222 (7.85)	0.0332 (2.11)	0.279	0.0283 (5.91)	0.0389 (1.33)	0.195
Shoes	0.0056 (8.29)	0.0056 (1.49)	0.421	0.0064 (6.38)	-0.0010 (-0.17)	0.318
Clothing services	0.0012 (2.02)	-0.0025 (-0.78)	0.068	0.0002 (0.25)	-0.0060 (-1.33)	0.040
Owned vehicles	0.1005 (5.51)	0.1378 (1.35)	0.125	0.0076 (3.27)	0.0653 (0.52)	0.137
Other transportation	0.0036 (1.96)	0.0133 (1.30)	0.074	0.0049 (2.25)	0.0231 (1.77)	0.057
Vehicle operations	0.0556 (8.87)	0.0594 (1.70)	0.341	0.0480 (6.18)	-0.0199 (-0.42)	0.351
Health	0.0212 (3.56)	-0.0250 (-0.75)	0.097	0.0394 (4.32)	-0.0143 (-0.26)	0.164
Personal care	0.0086 (7.35)	0.0237 (3.63)	0.193	0.0076 (5.24)	0.0130 (1.47)	0.222
Vacations	0.0288 (5.73)	-0.0199 (-0.71)	0.204	0.0391 (3.08)	0.0302 (0.39)	0.080
Admissions	0.0118 (8.18)	0.0225 (2.79)	0.223	0.0045 (1.77)	0.0059 (0.38)	0.115
Television, radio, etc.	0.0064 (2.57)	0.0083 (0.60)	0.052	0.0026 (0.62)	0.0550 (2.14)	0.085
Photography	0.0020 (3.37)	-0.0008 (0.23)	0.076	0.0015 (1.33)	0.0003 (0.05)	0.060
Other recreation	0.0033 (3.64)	0.0067 (1.34)	0.147	0.0042 (2.65)	-0.0015 (-0.15)	0.134
Reading	0.0036 (4.48)	0.0017 (0.38)	0.088	0.0036 (4.25)	0.0079 (1.56)	0.113
Education	0.0169 (3.66)	0.0174 (0.67)	0.156	0.0025 (0.95)	0.0041 (0.26)	0.102
Miscellaneous	0.0076 (3.22)	0.0097 (0.74)	0.066	0.0058 (2.97)	0.0103 (0.86)	0.065
Personal insurance	0.0184 (5.80)	0.0061 (0.34)	0.142	0.0160 (4.97)	-0.0056 (-0.28)	0.192
Gifts	0.0293 (5.95)	-0.0081 (0.29)	0.181	0.0448 (2.26)	0.2746 (2.28)	0.065

\* Income net of UI.

NOTE: F-statistics appear in parentheses.

which the ratio is below 0.5 in both years, the weighted average income elasticity over the two samples was 0.384. For the four commodities—alcohol, admissions, miscellaneous, gifts—for which the ratio exceeded 1.5 in both years, the same weighted average was 1.239.

To test the hypothesis more thoroughly, the rank correlation coefficients were calculated between the series in the next-to-last and last columns of Tables 6 and 7. For 1972, the rank correlation was 0.494, equivalent to  $t(30) = 2.71$ , which is significantly different from 0 at the 1 percent level of significance. For 1973 the rank correlation was 0.558, equivalent to  $t(30) = 3.00$ , also significantly different from 0 at the 1 percent level. There is no question that, in both samples, spending out of additional UI benefits was disproportionately for commodities for which demand is income elastic. Not only did UI recipients spend greater fractions of their incomes on income-inelastic goods; they used additional income to restore spending on income-elastic items.

### A quick simulation to achieve adequacy

The results from the CEX can answer the question: How much would benefits have had to increase on average so that the average UI recipient household consumed the same fraction of its income as did an otherwise identical household that was not on UI? While it is impossible to simulate what would happen to the entire pattern of consumption, the answer to this question will at least disclose the size of the benefit increase needed to place the UI recipient household on what would be here considered its optimal consumption path if it had planned perfectly for the period of unemployment.

As can be seen from the bottom line of Tables 6 and 7, UI recipients spent a greater fraction of their incomes than did others. In 1972, the average UI recipient household spent \$8,956 of a net income of \$9,752; the average among other households was \$9,051 on a net income of \$10,032. The figures for 1973 are \$9,424 and \$10,283 for recipients and \$9,728 and \$10,879 for nonrecipients. However, the two groups' average spending propensities are not comparable because their characteristics—the eight control variables—differed substantially at the means. The UI recipient households' consumption can be adjusted by assuming their characteristics are the same as those of the nonrecipients. This means specifying

$$\tilde{C} = \hat{b}_0 + \hat{b}_1 Y \cdot D + \hat{b}_2 U \cdot D + \hat{\gamma} \bar{X}_{NON}$$

where  $\hat{\gamma}$  are the parameter estimates in Table 3,  $\bar{X}_{NON}$  are the means of the control variables for nonrecipient households, and  $\tilde{C}$  is adjusted consumption for the average recipient household. The adjustment is \$200 for 1972 (\$137 for 1973), because their households are larger, younger, and contain more white members, UI

recipients with the same incomes as nonrecipients would spend more.

How much consumption would have to increase on average among UI recipients to match that of comparable nonrecipients depends on how lifetime incomes of recipient households compared to those of nonrecipients. At one extreme, assume that their lifetime incomes are identical—that other household members have not increased their earnings at all in response to the unemployment of one family member—so that  $Y$  reflects normal non-UI income, except for the partly compensated reduction for the unemployed person. In this case, consumption would have to increase from  $\tilde{C}$  to  $C_{NON}$ , where  $C_{NON}$  is average consumption among nonrecipient households, to make consumption the same among otherwise equal families.  $\tilde{C} - C_{NON} = \$265$  in 1972 (\$441 in 1973); this represents a 30 percent (59 percent in 1973) increase over the average UI benefit, suggesting a substantial amount of benefit inadequacy.

At the other extreme, assume that other household members have increased their work effort so that their actual income,  $Y + U$ , among recipient households equals their normal income. The ratio of actual income among recipients to that of nonrecipients,  $1 - P$ , is 0.972 (0.945 in 1973). For consumption by recipients to stand in this ratio to consumption of nonrecipients, adjusted consumption among recipient households would have to rise by \$12.62 on average in 1972, equal to 1.4 percent of average UI income. For 1973, adjusted consumption would be lowered. The assumption that normal incomes of UI recipients are lower than those of nonrecipient households is in line with results from a number of studies.<sup>27</sup> This leads to the conclusion that, with no retargeting of benefits away from households for which benefits may be more than adequate, only a slight increase in average benefits is needed to make benefits adequate for the average households.

### Conclusions

Although researchers have paid substantial attention to the notion of benefit adequacy in UI, this concept has never before been linked to economic concepts of individual welfare. Perhaps the most important contribution of the work in this report is methodological. One view of benefit adequacy—one consistent with the economic theory of consumption—has been presented. It has been demonstrated that one may consider benefits inadequate if the household that received them still is unable to attain its lifetime utility-maximizing consumption path. This view is not just a theoretical abstraction—it has implications for the measurement of benefit adequacy that was in fact used in the empirical work presented here.

The most important empirical finding to come out of the empirical work undertaken was that, according to the stated conception of benefit adequacy, less than half of UI recipient households studied found benefits inadequate; less than half of UI benefits was spent in a manner that indicates the households receiving them found them inadequate. If the purpose of UI is to prevent recipients from suffering declines in living standards, which one may interpret as declines in consumption, the evidence suggests that a substantial portion of benefit payments are not target efficient toward this goal. That is, payments could be redistributed among recipients so that more are prevented from suffering declines in living standards while no more benefits are paid out.

Spending patterns by UI recipients differed in a systematic way from those of nonrecipients. Households that received UI benefits spent larger shares of their total incomes on goods, the demand for which is income inelastic. Conversely, extra UI benefits were spent to a disproportionate extent on income-elastic commodities. This apparent paradox—that UI benefits are mainly spent on luxury goods—is resolved by the view taken here of how households respond to the need to curtail total consumption—that consumption of luxury goods will be cut first, and any income payments that the household receives will be used to restore those cuts.

No attention has been paid here to possible trade-offs between market purchases of goods and the use of time by unemployed individuals in the production of final commodities for consumption<sup>28</sup> because of the lack of time-budget information in the data sources. Nonetheless, it seems clear that, to some extent, unemployed individuals whose consumption is constrained by the unavailability of savings or borrowed funds can substitute their (suddenly less valuable) time for the goods they would have purchased had they been working. To the extent that this occurs, it implies that the degree of hardship remaining in the population of UI recipients was overestimated, for the adjustments the unemployed can make by trading off time for goods were ignored.

### **Policy implications**

The basic implication for UI policy stems from the finding that the likelihood that a household's consumption is constrained by lack of savings or an inability to borrow during a period of unemployment is negatively correlated with its income. In terms of the concept of benefit adequacy used here, households with lower incomes were more likely to have benefits that are inadequate. (This finding is paralleled in a sample of older workers whose permanent incomes can be measured.)<sup>29</sup> It implies that benefit adequacy for the population of UI recipients as a whole can be improved by any policy

that targets payments more toward low-income eligible households. Thus, for example, legislative changes that increase net replacement rates for low-income families and decrease them for high-income families would accomplish this end by changing benefit formulas to increase gross replacement still further among beneficiaries whose family incomes are low. Alternatively, it could be done by taxing UI benefits, as the author has proposed elsewhere,<sup>30</sup> and as was legislated for higher-income households in the Revenue Act of 1978, PL 95-600.

In some senses, the major policy implication of this study appears to conflict with the results of the literature on benefit adequacy. In these studies,<sup>31</sup> the authors recommend that benefit maximums be raised, as they find that reductions in expenditures are most severe, and reductions in liquid assets are greatest among recipient households in which the primary worker is unemployed and in which that worker's gross replacement rate is lowest. To some extent, this conflict is illusory: the findings in those studies are couched in terms of individual earnings losses and the degree to which receipt of UI by the unemployed individuals replaces their previous share of household spending; in the study presented here, the focus is entirely on the household as a whole. Whether raising benefit maximums is likely to aid higher- or lower-income households that contain UI beneficiaries will depend on whether individuals whose benefits are limited by State maximums are in higher- or lower-income households. (Certainly, unemployed secondary workers with a spouse having high earnings would be aided by our proposals, but also unemployed primary workers whose annual incomes are over \$30,000 would be aided by the proposals stemming from the benefit adequacy literature.)

These considerations suggest the following policy synthesis: raise or eliminate State benefit maximums so that those single-earner households are helped and raise gross replacement rates for low-wage earners so that households that have either one or two low-wage earners are not severely harmed by the need to reduce consumption during a period when one or both suffers unemployment. Simultaneously, to prevent these increases in benefits from aiding households in which family incomes are fairly high, savings are substantial, and access to borrowed funds is easy, all benefits should be taxed. Thus net replacement would be raised more among households for which benefits appear to be inadequate and lowered more among those for which benefits appear to be adequate.

This policy synthesis has the additional virtue of not violating too severely the need to consider the potential disincentive effects that UI benefits induce in jobfinding. Net replacement would be lowered among secondary workers in relatively high-income households, precisely those workers whose labor-supply behavior

appears to be most responsive to net wages.<sup>32</sup> Simultaneously, net replacement would be raised among low-wage primary workers and among secondary workers in low-income households. Thus, it is possible that the goals of reduced disincentives and improved benefit adequacy can be met simultaneously.

## Notes

1. Unemployment Compensation Amendments of 1976, PL 94-566.

2. See Joseph M. Becker, *The Adequacy of the Benefit Amount in Unemployment Insurance* (Kalamazoo, Mich., W. E. Upjohn Institute, 1961).

3. Becker, *The Adequacy of the Benefit Amount*.

4. Saul Blaustein and Paul Mackin, *Job Loss, Family Living Standards, and the Adequacy of Weekly Unemployment Benefits* (U.S. Department of Labor, Unemployment Service, 1977).

5. Paul Burgess and Jerry Kingston, *The Adequacy of Unemployment Insurance Benefits: An Analysis of Weekly Benefits Relative to Preunemployment Expenditure Levels* (U.S. Department of Labor, Unemployment Insurance Service, 1978).

6. Paul Burgess and Jerry Kingston, "Benefit Adequacy Relative to Preunemployment Expenditure Levels," *Proceedings of the Industrial Relations Research Association Conference*, 1978, pp. 38-45.

7. This paragraph is based on Daniel S. Hamermesh, *Jobless Pay and the Economy* (Baltimore, Md., Johns Hopkins University Press, 1977), chapter 5.

8. The view of the world implicit in this approach—behavior under constraints induced by market imperfections—is in many ways analogous to the discussion (in Abowd and Ashenfelter, *Unemployment and Compensation Differentials*, paper presented at universities-NBER Conference on Low-Income Labor Markets, June 9-10, 1978) on the adjustment of wage differentials to constraints imposed by workers' inability to obtain the optimal number of hours of work. In both that model and this, the constraint is assumed and its ultimate cause is not examined. Instead, the validity of both approaches rests on how well they describe data in tests of hypotheses that flow from them. This model extends slightly the work of James Tobin and Walter Dolde, "Wealth, Liquidity and Consumption," *Consumer Spending and Monetary Policy: The Linkages* (Boston, Mass., Boston Federal Reserve, June 1971), pp. 94-146.

9. The model produces the same qualitative results if we assume  $r_b > r_l > 0$ , but the mathematics are more complicated.

10. See Tobin and Dolde, "Wealth," in which they present a two-period model of consumption in the presence of constraints on liquidity and analyze how this problem affects the efficacy of monetary policy.

They also note that the constraint is likely to affect younger households particularly.

11. Martin Baily, in "Unemployment Insurance as Insurance for Workers," *Industrial and Labor Relations Review*, July 1977, pp. 495-504, attempts to justify UI benefits in the context of optimal resource allocation by considering the program as an insurance mechanism that pools the risks of unemployment with its concomitant reduction in income. John S. Fleming, in "Aspects of Optimal Unemployment Insurance," *Journal of Public Economics*, 1973, pp. 403-425, builds a model in which the optimality of UI depends on how well capital markets function.

12. Alicia Munnell, in *The Future of Social Security* (Washington, D.C., The Brookings Institution, 1977), clearly shows that old age and survivors insurance is redistributive on net. Martin Feldstein, in "Unemployment Compensation: Adverse Incentives and Distribution Anomalies," *National Tax Journal*, June 1974, pp. 231-44, raises questions about whether UI benefits equalize the distribution of income, but a reanalysis of his results (Hamermesh, *Jobless*, chapter 2) suggests his data show they do so. Daniel Hamermesh, *Unemployment Insurance and the Older American* (Kalamazoo, Mich., W. E. Upjohn Institute, 1980), shows that this is also true when one holds constant for biases that result when households of different ages are included in the same sample. Unfortunately, these studies deal only with the distributional effects of UI benefits, and it is very difficult, as the work of Ronald Ehrenberg, Robert Hutchins, and Robert Smith, "The Distribution of Unemployment Insurance Benefits and Costs," Technical Analysis Paper No. 58 (U.S. Department of Labor, ASPER, October 1978) indicates, to discover the distributional impact of the partly experience-rated payroll taxes that finance those benefits.

13. The secondary effect of changing unemployment duration has been analyzed in a dozen studies summarized in Hamermesh, *Jobless*, chapter 3, and at least a half dozen more have been completed since then. Martin Feldstein, "The Effect of Unemployment Insurance on Temporary Layoff Unemployment," *American Economic Review*, December 1978, pp. 834-46, and Terrence Halpin, "The Effect of Unemployment Insurance on Seasonal Fluctuations in Employment," *Industrial and Labor Relations Review*, April 1979, pp. 353-62 have examined how UI changes employment at the micro level, but a number of studies have considered its effects on macroeconomic stabilization (see Hamermesh, *Jobless*, chapter 4).

14. Michael Carlson, "The 1972-73 Consumer Expenditure Survey," *Monthly Labor Review*, December 1974, pp. 16-23.

15. In Hamermesh, *Unemployment*, chapter 3, this model is examined by using a data set for which a permanent income measure can be constructed; the results are very similar to those presented here.

16. The exact problem is encountered by Walter Nicholson, in "Expenditure Patterns: A Descriptive Survey," in A. Rees and H. Watts, eds., *The New Jersey Income Maintenance Experiment*, Volume III (New York, Academic Press, 1977), and by Hendrik Houthakker and Lester Taylor in *Consumer Demand in the United States* (Cambridge, Mass., Harvard University Press, 1970). Robert Holbrook and Fred Stafford, in "The Propensity to Consume Separate Types of Income," *Econometrica*, January 1971, pp. 1-20, leave the definition of consumption in their paper unclear, but it too appears to suffer somewhat from this problem.

17. For a discussion of evidence on this, see Marjorie Galenson, "Do Blacks Save More?" *American Economic Review*, March 1973, pp. 208-13.

18. If there is perfect foresight, households below retirement age will save for the retirement period when they expect to have no earnings. Thus, during their youth, they will consume less than their income. During their retirement, they will consume more than their income, as they draw down their asset value. This assumes, in addition to perfect foresight, that the bequest motive is unimportant, an assumption that appears to be contradicted by recent work, for example, Paul Menchik, "Intergenerational Transmission of Inequity: An Empirical Study of Wealth Mobility," *Economica*, November 1979, pp. 349-62.

19. See Joseph Seneca and Michael Taussig, "Family Equivalence Scales and Personal Income Tax Exemption for Children," *Review of Economics and Statistics*, August 1971, pp. 253-62.

20. Hamermesh, *Jobless*, p. 22.

21. The benefit adequacy literature finds that households do often draw down their liquid assets while receiving UI benefits. For example, Becker (*The Adequacy*, p. 41) reports that, in single-earner families with dependents, between 16 and 60 percent of the households surveyed, in the four States for which he tabulated the data, decreased their savings account balances. Between one-third and one-sixth of these reported exhausting their savings.

22. Essentially equation 10 includes  $YT(1 - D)$  in  $Y(1 - D)$  where equation 9 did not. Since  $U \cdot D$  is uncorrelated with  $YT(1 - D)$ , this inclusion does not bias the estimate of  $1 - \alpha$ . However, equation 10 also constrains  $b_2$  to be an average of the coefficient of  $YP \cdot D$  in equation 9 and  $1 - \alpha$ . Because the coefficient of  $YP \cdot D$  in equation 9 exceeds  $1 - \alpha$ , this means that variations in  $YT \cdot D$  are given more positive weight in explaining variations in  $C$  than they should. (This assumes  $r(YP \cdot D, YT \cdot D) = 0$ , which is true by construction; and that  $r(YP \cdot D, U \cdot D) = 0$ . Since the correlation of  $Y$  and  $U$  was only  $-0.05$  for UI recipients in 1972, and  $-0.04$  in 1973, and these negative correlations reflect the inclusion of  $YT$  in  $Y$ , our assumption that  $r(YP \cdot D, U \cdot D) = 0$  may be justified.) When  $YT$  is below its mean (is negative), some of the effect

of decreased  $YT$  is mistakenly reflected in the estimates of equation 10 as a too-large explained decrease in consumption. If  $r(YT \cdot D, U \cdot D) < 0$ ,  $U$  is above its mean at the same time  $YT \cdot D$  is below its mean. Thus  $\hat{b}_2 \cdot U \cdot D$  must be more positive in equation 10 than it should be, if the regression plane is to pass through the means of all variables. Thus  $\hat{b}_2 > (1 - \alpha)$ , and the estimated effect of  $U$  on consumption is upwardly biased.

23. In a discussion with a loan officer at the Michigan State University Employees Credit Union, it was determined that unemployed persons' ability to qualify for loans depended on their total income from all sources. UI is treated like any other income flow, though the amount of UI left in a person's entitlement was considered. The loan officer stated that this is the standard practice in the industry.

24. The lattice searched was centered around the triplet  $\beta_0 = 0$ ,  $\beta_1 = 0$ , and  $\beta_2 = -3$ . (The last value corresponds with an  $\alpha = 0.95$  that we find when  $\alpha$  is not assumed to be a function of income and liquid assets.) If we specify  $Y + U$  and  $LIQ$  in thousands, the range of  $\beta_0$  searched was between 1.5 and  $-0.25$ ; that for  $\beta_1$  was between 0.5 and  $-0.25$ ; and that for  $\beta_2$  was between 3 and  $-5$ . All points on a broad lattice within these three ranges were searched. The values between all the nearest values of  $\beta_0$ ,  $\beta_1$ , and  $\beta_2$  to the maximizing values were then searched on a finer lattice, and the maximizing point was chosen.

25. Nicholson, "Expenditure," for example, finds  $R^2$  ranging from 0.04 to 0.55, with a median of 0.25, on equations estimated for 15 commodities over a sample of only 586, far smaller than the samples.

26. In their analysis of how spending on individual commodity groups varies with total household expenditures in the 1960-61 Survey of Consumer Expenditures, Houthakker and Taylor, in *Consumer*, 1970, find the highest income elasticities to be for education, new cars, and vacation housing, and the lowest elasticity to be for food eaten on the farm.

27. See the discussion of note 12.

28. Michael Grossman, in "Unemployment and Consumption," *American Economic Review*, March 1973, pp. 208-13, used data on spending patterns of employed and unemployed individuals to conclude that the unemployed consume disproportionate amounts of commodities that he infers are relatively time intensive.

29. Hamermesh, *Unemployment*.

30. Hamermesh, *Jobless*.

31. Becker, *The Adequacy of the Benefit Amount*; and Burgess and Kingston, *The Adequacy of Unemployment Insurance*.

32. The studies in Glen Cain and Harold Watts, "Income Maintenance and Labor Supply," *Monthly Labor Review*, December 1974, pp. 16-23, show that supply elasticities are quite high for secondary workers. George Borjas and James Heckman, in "Labor

Supply Estimates for Public Policy Evaluation," *Proceedings of the Industrial Relations and Research Association Conference*, 1978, pp. 320-31, demonstrate that the many studies of supply of prime-age men are in general agreement about the inelasticity of their supply.

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# Adequacy of State Payments: An Assessment

Henry E. Felder  
Jane-yu Li

From the beginning of the unemployment insurance (UI) system in the 1930's, a continuing debate has centered on the criteria for evaluating the adequacy of UI benefits. Presently there are no universally accepted standards for benefit adequacy. However, historical precedents exist for defining adequacy as a ratio of benefits received to lost wage income or a ratio of benefits received to necessary consumption expenditures.<sup>1</sup> Definition and measurement are complicated by the fact that the Federal-State UI system is actually 53 State systems.<sup>2</sup> Each of these systems determines the laws and parameters governing eligibility, the benefit structure, and other aspects of the system. These factors profoundly affect the level of benefits. In addition, items over which the individual may exercise some control, such as size and composition of families, labor supply of family members, family expenditure patterns, duration of unemployment, and other variables will also determine benefit adequacy.

For policy purposes, benefit adequacy must be measured. In calendar year 1978, 18.4 million U.S. workers filed for UI benefits under the regular State programs.<sup>3</sup> They were compensated for 105.5 million weeks of unemployment and received \$8.6 billion in benefits. Nationwide, the weekly benefit payment averaged \$83.51 and was paid for an average of 22.5 weeks. However, average benefits ranged from a low of \$67.03 per week in Tennessee to \$107.52 in the District of Columbia; and the potential duration of benefits ranged from an average of 16.5 weeks in Wyoming to an average of 30 weeks in Iowa and Pennsylvania. In addition, 13 States pay dependents' allowances.<sup>4</sup> Can UI payments meet the needs of unemployed eligible workers and still maintain the fiscal integrity of the UI system?

This report focuses on the two most widely accepted concepts of UI benefit adequacy measurement: the ratio of benefit payments to the wage loss resulting from unemployment and the ratio of benefit payments to the portion of household expenditures the individual must provide. The second section provides a theoretical basis for the definition of benefit adequacy, and that theory

is used to examine the rationale for these two measures of benefit adequacy. The third section describes alternative definitions of "adequacy." The fourth section measures benefit adequacy using simulations of data from the Survey of Income and Education and the Consumer Expenditure Survey.<sup>5</sup> The major findings are presented in the fifth section, and the policy implications of these findings are discussed in the final section.

## Economic Analysis of Adequacy

The UI system combines both insurance and needs-related, or welfare, aspects in its eligibility requirements and payment schedules. The insurance aspects of the UI programs imply an actuarially based benefit payment system. Benefit payments reflect prior earnings experience, yet higher proportional benefits are often paid to low-wage workers. Also, several States pay additional benefits to eligible unemployed workers with dependents.<sup>6</sup> The welfare aspects of the UI programs imply that a utility loss suffered by the unemployed worker needs to be partially or wholly replaced by benefit payments. This section examines some of these aspects of the UI program and uses the concepts to derive benefit adequacy measures. These two views (insurance and welfare) lead to different conclusions about the adequacy of UI benefits.

## UI benefits as an insurance program

*General insurance properties.* UI benefits are insurance against the risk of income loss due to unemployment not caused by the insured. As an insurance program, the system must meet the various tests of insurability: an involuntary risk, economic losses, verifiable risk, and risk spread over a large number of users. These

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four tests are all part of the UI system. First, the eligibility requirements seek to ensure that unemployment results from no fault of the insured, that is, that unemployment is involuntary. Second, the individual claimant has to demonstrate substantial attachment to the labor market for there to be a basis for measuring loss. Third, unemployed workers must assert their willingness to seek reemployment. Fourth, at any given moment only a small fraction of all covered workers will be receiving UI benefits.

Benefit payments to eligible workers contain several coinsurance features. Benefits are paid only after a waiting period of 1 or 2 weeks in most States. This is similar to the deductible clause of most insurance programs. There are large tax rates imposed on workers who are employed part-time. And lastly, the benefit payment replaces only a fraction of the acknowledged economic loss. The coinsurance aspect is designed to reduce the "moral hazard," or disincentive effects, incorporated in an insurance program. This is the disincentive effect of UI. As benefits increase, the labor supply decreases, all other things being equal.<sup>7</sup>

*Cost and revenues of the insurance program.* When considered as an insurance program, the potential UI weekly benefit amounts (WBA) are based on prior wages ( $W_{-1}$ ) and the prior labor supply ( $L_{-1}$ ) of the claimant (as measured by weeks of work in the base period defined for a particular State):

$$WBA = f_j(W_{-1}, L_{-1})$$

The WBA is fixed at the time the worker files a benefit claim. The potential duration of benefits (BD) is determined by the maximum duration set by a State ( $\overline{BD}$ ) and the weeks of unemployment (WU) minus the waiting period ( $w$ ):

$$BD = \text{Minimum}(\overline{BD}_j, WU - w)$$

It too is fixed at the time the worker files for benefits.

The actual amount of benefits paid (BP), however, is determined by the probability that the individual is found eligible for benefits ( $p$ ), the weekly benefit amount (WBA), and the duration elasticity of the benefit payment ( $\eta_D$ ):

$$BP = h(p, WBA, \eta_D).$$

The duration elasticity of benefit payments is the impact of the benefit payment on the length of time the worker is unemployed. It affects the total cost of UI payments and is explicitly incorporated into the insurance program through the experience rating of firms.

The insurance premiums are paid by the employer; but the incidence of the premium is likely shared by the employer in the form of lower profits and by the employee in the form of lower wages and higher layoffs. The premium is in the form of a tax ( $T_k$ ) paid by the employer against the taxable wage base of each

employee ( $W$ ). The taxable wage base is the first \$6,000 paid by any employer during a given year.<sup>8</sup>

$$T_k = \lambda_k \sum_i w_{ik}$$

In a manner analogous to an insurance premium, the tax rate ( $\lambda_k$ ) is experience-rated, with higher rates paid by firms that have increased risk of chargeable turnovers.<sup>9</sup> Increases in total unemployment taxes may come from increases in the taxable wage base, increases in the average tax rate, or both.

*Fiscal integrity of the program.* In order for a given State to maintain the fiscal integrity of the program, the total taxes collected must at least equal total UI benefit costs plus administrative costs ( $A$ ):

$$\sum_i BP_{ij} + A_j \leq \sum_k T_{jk} = \sum_k \left[ \lambda_{jk} \sum_i w_{ik} \right]$$

where:  $i$  is the index of the individual who receives benefits,  $j$  is the index of the State, and  $k$  is the index of the employer within the State. The State sets the parameters,  $\lambda$ ,  $\overline{BD}$ , and WBA.

The individual determines BP, given  $\overline{BD}$  and WBA. The employer determines the layoff policy and indirectly determines  $\lambda$ . Then the State must set its policy parameters so that it is at least able to meet the cost requirements of the program.

Baily (1977) suggests that under certain not very restrictive assumptions, the optimal insurance level can be attained when the benefit payment replaces about 50 percent of the worker's prior take-home pay.<sup>10</sup> Brechling (1977) suggests that the optimal taxable wage base should average about 50 percent of the annual earnings of the covered worker.<sup>11</sup> If these criteria are correct, then benefit parameters can be set that produce optimal benefit payments and tax levels. However, such an actuarial approach may not lead to a benefit level that reduces the hardship that arises from reduced income. For this type of determination it is necessary to examine UI as a needs, or welfare-type, program.

### UI as a needs program

*Expenditures as basis for needs.* Alleviation of hardships arising from lost wages due to unemployment was a major reason for the implementation of UI benefits. Hardship was defined as arising from the inability to meet selected expenditure needs.<sup>12</sup> These welfare maintenance needs, or benefit amounts, were defined relative to the family's size (FS), labor supply decisions of family heads ( $L_M$  and  $L_F$ ), and the family's expenditure pattern (EXP), or lifestyle. Under needs determination, the weekly benefit payment for an individual in a given State is:

$$WBA_j = f_j(L_M, L_F, EXP).$$

But the expenditure pattern is directly related to family size and other sociodemographic characteristics of the family (SOC).

$$\text{EXP} = \text{EXP}(\text{FS}, \text{SOC}).$$

Under the needs concept, the duration of benefits does not depend on State regulations alone but also on the prevailing economic conditions and the anticipated speed of adjustment of the unemployed family head to those conditions. Thus, in order to maintain a decent welfare level for benefit recipients, benefits could be extended longer than the normal maximum duration.

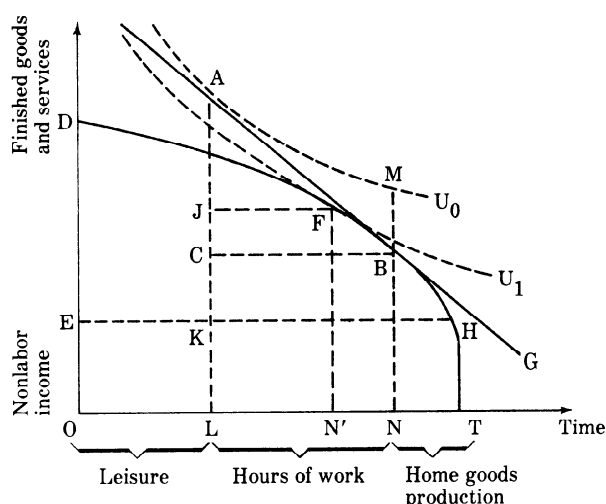
Several authors have proposed expenditure mixes that they have defined as "nondeferrable," "recurring," or "necessary and obligated" expenses.<sup>13</sup> While the expenditure set varied across these and other benefit adequacy studies, the general result was that benefits could be deemed adequate when they paid for 100 percent of these expenses.<sup>14</sup> Implicit in these studies are the concepts that there exists a set of expenditures or obligations that are permanent and that would cause present and future financial hardships if not met. These obligations are thought to be income-inelastic, necessities rather than luxuries.

Under a welfare, or needs, criterion, benefit adequacy cannot be determined through strictly cost-revenue accounting procedures. Instead, the determination of an optimal benefit level under a welfare maintenance goal rests on the determination of social benefits and costs. The social benefits include stabilization of aggregate demand for goods and services when unemployment rises and increased efficiency in labor market reallocations. Since most of the UI tax revenues are distributed to unemployed workers, the true social costs consist mainly of the work-disincentive effects of UI payments and the possible effects on employers' layoff policies. Each State determines whether there will be an explicit welfare aspect to UI by its decision to provide dependents' benefits.

*Utility losses during unemployment.* While there may be hardships arising from loss of wage earnings during unemployment, the utility loss is partly compensated by increases in leisure and home-produced goods and services.<sup>15</sup> Since these have positive values, the hardship imposed by unemployment is less than the value of the lost wage earnings. In addition, unemployed individuals reduce their expenditure levels and begin to spend funds accumulated for such interruptions of their income flow. Usually some other members of the household seek employment or more employment, and other efforts are made to reduce unemployment hardships. This result is shown in Figure 1.

Figure 1 illustrates the division of time into leisure, outside work, and home production. The employed worker has a utility level shown as  $U_0$ . At this point the person works LN hours to earn income, represented by

FIGURE 1. Time allocation and goods consumption



AC amount of goods and services. The total goods and services that the worker can consume is AL (including CK, the home-produced goods and services portion). Line G represents the individual's wage rate, and line HT represents non-own-labor income; the DBH curve represents a production function for home goods. When the person becomes unemployed, the utility level drops to  $U_1$ , and the person consumes JL of goods and services, which includes the JK portion of home production of goods and services. Obviously, the FJ distance is smaller than that of BC, meaning that employed workers tend to spend less time engaged in home production of goods and services. This is most clearly seen by comparing  $N'T$ , the time of home-goods production of an unemployed worker, with  $NT$ , the time of home-goods production of an employed worker.

The receipt of UI benefits permits the recouping of a fraction of the goods and services lost. The composition of these goods and services is determined by such factors as lifestyle, family size, and savings propensity. Accordingly, the hardship imposed by the earnings loss is also determined by these factors. Looking at the change in utility rather than the income loss, it becomes obvious that UI benefits need not replace all lost income in order to reduce the hardship associated with unemployment.<sup>16</sup> In addition, when the measure of benefit adequacy is determined by lifestyle and savings behavior, then benefit adequacy is directly related to frugality. Increased benefits discourage savings.

## Replacement Ratios as Measures of Adequacy

### Wage replacement ratios

Wage replacement ratio may be defined in several ways: using gross or net income, defining wage replacement

over the length of the unemployment, and incorporating income represented by fringe benefits. Each of these ratios changes the value of benefit adequacy. This section defines a set of five wage replacement ratios that cover the broadest practical definitions of benefit adequacy. These formulas are explained in greater detail in the next section of this report. Fringe benefit losses were not included in these calculations. It is believed that the loss of medical coverage represented the most significant income loss, although paid vacation and paid sick leave were the fringe benefits most costly to the employer. It was not possible to get meaningful approximations of the costs of these fringe benefits.

To understand the income replacement ratios (IRR), the authors used:

- WBA = weekly benefit amount
- AWW = average gross weekly earnings
- BD = maximum duration of benefits, in weeks
- WU = weeks unemployed
- $t_1$  = average tax rate, while employed
- $t_2$  = average tax rate, while unemployed

- Gross wage replacement rate = the ratio of weekly benefit amounts to average gross weekly wages

$$IRR1 = \frac{WBA}{AWW}$$

- Gross-duration wage replacement rate = the ratio of total unemployment benefits received to total gross earnings lost

$$IRR2 = \frac{[WBA \cdot \text{Min}(BD, WU-1)]}{(WU \cdot AWW)}$$

- Net wage replacement rate = the ratio of weekly benefits to net average weekly wages

$$IRR3 = \frac{WBA}{(1 - t_1) AWW}$$

- Net-duration wage replacement rate = the ratio of total unemployment benefits to total net earnings lost

$$IRR4 = \frac{[WBA \cdot \text{Min}(BD, WU-1)]}{[WU (1 - t_1) AWW]}$$

- Net-taxed wage replacement rate = the ratio of taxed weekly benefits to net average weekly wages

$$IRR5 = \frac{(1 - t_2) WBA}{(1 - t_1) AWW}$$

### Expenditure replacement ratios

Benefit adequacy is also measured as the ratio of the weekly benefit amount to the "necessary" expenditures made by the family. To develop these expenditure ratios, the following concepts are discussed: the permanent income and expenditure of the family, the

income elasticity of goods and services consumed, and the income share of unemployed workers in their families.

*Income elasticity of goods and services.* Traditionally, expenditures essential to the maintenance of a viable family unit are considered necessities. These include expenditures on food, shelter, transportation, and clothing. However, other expenditures, such as credit purchases, also assume aspects of necessity in a modern existence. One criterion to both of these lists is whether the expenditure is income-elastic and can be reduced in the short run. For example, food is income-inelastic, but some components of food purchases are income-elastic. As an adjustment to income loss resulting from unemployment, families may purchase less food and spend a larger proportion of their money on cheaper varieties of food. In the short run, shelter costs are close to being completely income-inelastic; the family must continue to make constant payments even though family income falls. Thus, expenditure elasticities provide a systematic way to distinguish necessary goods from luxury ones.

*Family permanent income and expenditure.* The budget constraint facing the family over a given period of time is defined as:

$$Y^D = W_M H_M + W_F H_F + Y^N = pG + S$$

where:

- $Y^D$  = total family disposable income
- $W$  = wage rate
- $H$  = hours of work
- $Y^N$  = nonlabor income
- $pG$  = cost of goods and services consumed by the family
- $S$  = savings
- $M$  = male head
- $F$  = female head
- $L$  = leisure
- $G$  = goods

It is assumed that for every family  $Y^D > 0$ . It is assumed that there exists a family utility function— $U = U(L_M, L_F, G)$ —which the family seeks to maximize and that labor-supply decisions are joint decisions. Families are expected to try to maintain income levels close to their expectation of permanent income. When one head is underemployed or out of the labor force, the sudden unemployment of the other head is expected to induce increased work effort by the underemployed head.

The family adopts an expenditure pattern to maximize its utility function. For such a family, the permanent consumption rate, or expenditure/income ratio, is  $pG/Y^D$ . The family's expenditures may exceed its savings if the family is not saving. These expendi-